Study Unit

Floors

Floors are one of the most important parts of a successful interior decorating job, yet they're often overlooked. Because the selection of a floor covering can either make or break a decorating job, you should give that decision a high priority. One key to making this decision is learning what's available. When you're familiar with the variety of flooring options available to you, you'll be better able to make the correct choices for your clients.

In this study unit, you'll learn the differences between the various floor coverings available to professional decorators, and you'll learn about the characteristics of each type.

When you complete this study unit, you'll be able to

- Explain the importance of floor treatments and the importance of using an appropriate floor treatment
- Discuss the effects of lighting on floor treatments
- Compare the differences between types of flooring and floor coverings and explain where each can be used effectively
- Differentiate between carpets and rugs and identify the characteristics of each
- Select and use appropriate finishes on floors
- Plan attractive floors in tile, stone, slate, brick, vinyl, linoleum, terrazzo, and indoor-outdoor carpeting

Preview

ONLINE RESOURCES

Remember to regularly check "My Courses" on your student homepage. Your instructor may post additional resources that you can access to enhance your learning experience.

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Floors

DECORATING FROM THE GROUND UP

Planning the floor treatment is a major part of an interior decorating job. Today, interior decorators have so many choices available to them that it's especially important to understand all of the factors that should go into the selection of floor decor.

If you're working on a job that involves a new house or a complete renovation, you may be called upon to select the original floor surface. If you're just doing a complete room redecoration, you may have to select a replacement floor covering. Or, you may be asked to redecorate a room without changing the existing floor covering. In that case, you must know how to develop a decorating plan that starts with a particular floor.

Where Does a Decorating Plan Begin?

Which element of the decorating plan takes priority? Should you select the floor covering to go with the other elements of decoration, or should you select the floor covering first and plan the rest of the room to go with the floors?

If you aren't going to replace the existing floor covering, then you must naturally plan the decorating around the current floor. However, what should you start with when you're decorating a room from scratch? Should you select the floor covering first, or should you start with the other decorating

elements? Actually, there's no specific rule for how you should begin. Developing a decorating scheme is a creative process, and it's not always possible to control where creative ideas will be generated first. Once you've analyzed the client's needs and chosen the mood to be created, you may find that a fine idea springs to mind for the covering of a seating group next to the fireplace. Or, you may know instantly, without any real thought, what would be the best window treatment for the room. It really isn't possible to control such inspiration or try to make it happen in an orderly, item-by-item fashion.

It's your job, as the decorator, to see that all of the elements in a room's decor blend into an effective whole. So once you've had one or two inspirations, you must see whether you can develop a plan that blends them into an entire room scheme. If you have the skills and an ample choice of samples of materials, you'll often be able to develop your room plan from those first inspirations.

But what if it's proving difficult to blend the colors, materials, and styles you want in the room? Designing a room decor often involves some mental juggling. For example, you may find a flooring that works beautifully with the window treatment, furniture style, and overall mood of the room as you've planned it, but perhaps the flooring doesn't work well with the colors of the fabric you have in mind for the fireside chairs. Which should you alter—the choice of flooring or the choice of fabric? In a case like this one, always sacrifice the less important choice in favor of a major one. If you've selected a floor covering that's ideal except for a conflict with a planned chair cover, give up the chair fabric. The floor covering is a major expense, and because of its size, a major element in your room design. It's far more important for the floor to be just right for the room than for two seat covers to dictate the room scheme.

Second only to the walls, the floor is the largest single area of decorating in a room plan. As shown in Figure 1, the right floor makes a great difference to the success of a room.

FIGURE 1—This floor makes a dramatic statement.

When you begin a room decorating plan without some particular point of inspiration, the floor is the logical place to begin. Actually, you should consider both the floor and the wall treatments together. However, since the floor is the more costly and more difficult to change, once installed, selection of the floor treatment must be considered the more important.

The Science of Flooring

With a name like a crime lab, CRI (the Carpet and Rug Institute) approaches flooring with scientific analysis. It calls itself the science-based source for the facts on carpets and rugs. You can find invaluable information and articles about flooring on its Web site at **http://www.carpet-rug.com/.**

What a Floor Can Do (Besides Just Lie There)

A floor can do more than simply blend with the decor of a room. Depending on the effect that's desired, a floor can, decoratively, be used to

- Anchor an entire decorating scheme into a room
- "Lift" the floor
- Make the room look larger
- Make the room look smaller
- Cut down the apparent height of a room
- Define living areas in an open-plan home or within a room
- Provide a practical base for special activities
- Set the color scheme for a room
- Provide a unified and finished look to the room through color and design elements

Let's examine each of these possibilities.

Anchor an entire decorating scheme into a room. *Anchoring* refers to the process of using a solid color for the flooring, in a value that's deeper than, but compatible with, the color of the walls. This process gives the room a feeling of being down to earth and on solid ground, increasing coziness and a sense of security and warmth.

"Lift" the floor. *Lifting* gives the floor a light, walking-on-air, ethereal quality. This feeling is accomplished by using a pale floor treatment—sometimes lighter in value than the walls.

Make the room look larger. Floor coverings can create optical illusions. An unbroken expanse of solid-colored floor covering with a smooth texture makes a room appear larger, especially if the same covering can be seen to continue into other rooms. If you're decorating an entire house in which

the rooms are small and the house design is chopped up, one plain floor covering used throughout the home will give an illusion of spaciousness and elegance.

Make the room look smaller. Using a large pattern or a variety of floor coverings in one room can make the room appear smaller from wall to wall.

Light floors make a room look more spacious. Darker colors make a room look warmer.

Cut down the apparent height of a room. A heavy weave or deep texture in a floor covering gives the illusion that the floor is closer than normal to the viewer's eye. This illusion makes the distance from floor to ceiling seem shorter.

Define living areas in an open-plan home or within a room. Suppose a room you're decorating must be used for entertaining guests and for dining, or possibly you're working on a studio apartment that must combine living and sleeping in one room. In such cases, different floor treatments within the room can help create differing moods for each area.

Provide a practical base for special activities. A room can be used for everything from formal entertaining, eating, and sleeping to dancing, bathing, cooking, exercising, painting, and game playing. No matter what a room is used for, the floor covering should be in keeping with the intended mood, but it must also be the proper choice for practical use. The material selected for use on the floor should add to the comfort and well-being of the occupants.

As a decorator, you should consider how you can use floor material to help solve problems. For example, floor coverings can insulate against cold in a cold climate, insulate against heat in a warm climate, and provide sound control. Where sound needs to be absorbed, carpet is chosen for its acoustical effect.

Set the color scheme for a room. A beautifully patterned rug that's right for the planned mood of a room may be the basis for planning the entire color scheme of a room. A well-designed and well-made rug reveals the benefit of expert color design. It can safely be used as a guide to setting the color scheme of the room.

When starting with a patterned floor covering, here are some possibilities for developing the room's color scheme:

- Paint the walls a lighter tint of the main color in the pattern. (Remember that a *tint* is obtained by adding white to a color.)
- Pick up the second dominant color of the carpet in the draperies and furniture coverings.
- Use the brightest color for accent colors in small accessories such as pillows, vases, or floral arrangements, as shown in Figure 2.

The room in Figure 2 shows how a color scheme can be developed from the ground up. The client bought the rug for the room first and wanted the room decorated around it. In this case, the decorator chose the dark green from the rug for the walls and the dark rose for the ceiling. The chairs at the table use the cream and light rose from the rug, while the chairs at the left incorporate the green. Finally, the window treatments and the table coverings include all of the colors from the rug.

FIGURE 2—The decor of this room began with the rug.

In another example, suppose you have a *Navajo* (NA-vuh-ho) *rug.* Navajo rugs are made by a Native American group in the southwest portion of the United States. The rugs generally include cream, white, black, gray, and red in the design. You could develop an entire color scheme based on these colors. You might paint the walls a pale cream color, and then use cream and gray fabrics. Finally, you might add accents of bright red and black. The overall effect would be pleasing. Each color would be compatible with the other colors because you used the well-designed rug as your guide.

Provide a unified and finished look to the room through color and design elements. A floor covering that's beautiful in itself isn't enough. If either the choice of color or any other element of the floor covering isn't right for the room, the choice of floor treatment is wrong, and the room won't look right. Floor covering involves too large an area of a room to allow for a slight mistake. Any flaw in the choice will loom as a major mistake in the overall decorating plan.

Floors and Floor Covers

What's that you're standing on? If you're indoors, you're probably standing on an assortment of layers of materials that we generally call "the floor." Most people use the term without regard to exactly what's beneath their feet. For purposes of communicating accurately in the field of interior design and decoration, it's sometimes necessary to be more specific.

A *floor* consists of two layers—a *subfloor* topped with a *permanent floor.* The subfloor may be a raised layer of wood sheets covered with building paper. The permanent floor material sits on top of this subfloor. Or the subfloor may be a simple concrete slab to which the permanent floor adheres directly.

The permanent floor may be wood, tile, stone, slate, brick, vinyl, or other synthetics in sheet or tile form. It may even be carpet laid wall to wall directly over the subflooring. A permanent floor may be left bare in a decorated room. Some permanent floor materials will endure, looking good through many generations of use. Others are less durable, and if subjected to tough wear, may need replacement or covering.

A *floor covering* is something that's placed on top of the permanent flooring. The most clear-cut example of a floor covering is a rug that's placed over part of the permanent flooring. A floor covering may be used for a purely decorative effect, or it may be used to conceal a worn permanent floor or to protect the permanent floor.

FIGURE 3—The rug in the foyer of this home is used partly for its decorative effect, but it also serves to protect the permanent floor beneath it.

Once past the example of rugs, however, the matter of defining floor coverings becomes a little hazy. This confusion results from the increasing versatility and durability of materials developed in recent years for use on the floor.

Some of these materials may be used either as the original permanent flooring over a subfloor, or they may be applied directly over an existing permanent flooring, in which case they're at once both a floor covering and a new permanent flooring. In the past, when most permanent floors were made of wood, wall-to-wall carpet was a floor covering. Now, however, with changing building patterns, carpet is sometimes used as the flooring itself, installed directly over the subflooring or concrete.

The Floor as a Design Element

Should the floor be a focal point in the decor of a room? Or should it form part of the background, along with the walls, against which the furnishings of the room are displayed? Normally, the floor is planned to enhance the decor by complementing it, without attracting unusual attention to itself. This usage is one of the important keys to creating a well-balanced, pleasing, total room design. Too often, people who have no professional decorating skills make the mistake of selecting the most eye-catching, attention-getting floor covering they can find. They end up with a room in which the carpet is the star. Instead of enhancing the room, the floor covering overwhelms it. The room is thrown out of balance because attention is riveted on the floor.

In some special circumstances, however, a floor can be made the decorative highlight. The floor may be the focal point when no other element of the room is worthy of top attention. This occurrence is most apt to be in large public places where furnishings are either very scanty or very utilitarian, being designed for function rather than beauty (such as rows of plastic waiting room chairs in an airport). In such cases, because of the size of the rooms and the lack of many decorative elements, floors can star.

In homes, floors should have prominence in the room only if they're truly special. Even then, the overall effect of the room will be more comfortable and pleasing if the room is decorated to blend the floor into the room design rather than to show off the floor.

Outstandingly attractive wood floors accented with handsome area rugs are examples of floor treatments in a home that are worthy of being featured and having a decor planned to go with them (Figure 4). Perhaps your client has (or wants to acquire) an Oriental or old European rug that's beautifully patterned and colored. The remainder of the room should then be designed to enhance the appearance of the fine rug. But even so, the room will look best if that outstanding floor covering is blended into the room through use of appropriate colors and furnishings, rather than made to stand out.

FIGURE 4—The beauty of the wood in this floor is increased by the use of an area rug.

Don't forget to take a swatch of the fabrics or paint you want to match with you when you shop for flooring. You'll be glad you have it, once you're looking at a wide selection of similar colors!

In general, it's best if the eye isn't pulled unnaturally upward or downward. While one may, by choice, look at and admire a beautiful floor or handsome ceiling, the eye should be able to focus primarily on furnishings and people within the eye's normal viewing range without being constantly distracted by the floor or ceiling.

Balancing Pattern and Color

Successful room designs depend on a careful balance of pattern and color. Patterns create a sense of movement by pulling the eye in certain directions. Therefore, you must be careful when you choose the patterns for a room. Conflicting patterns have a jarring effect because too much movement, in too many directions, is unsettling. The same is true when you have too much unbalanced, unanchored color. To avoid this problem, use only one dominant pattern in a room. Create color balance by repeating the colors from the pattern in solid-colored areas of the room.

The goal is to achieve balance. For example, suppose you're decorating a room in which the carpet has a pattern. In such a case, solid-colored furnishings, harmonious with the carpet, provide the best balance, as shown in Figure 5.

FIGURE 5—Balance is achieved in this room through the use of pattern in the carpet and solid colors in the sofa, chair, and draperies.

On the other hand, if you have a bright, solid-colored floor covering, you may balance it with softer tones in drapery and upholstery materials. If you have a completely patternless room done entirely in neutral colors, you may introduce some pattern to relieve the sense of dullness. One way to introduce variation without disturbing the color balance is to use prominent textures. Sculptured designs, textured carpet, and other effects in floor coverings add interest in the same way as colored patterns, but in a more subtle way.

The Importance of Consistency

In planning any room design, whether you start with the floor treatment or some other element, always consider how the various decorative elements relate to each other. The standard for judging how well they relate is *consistency.*

It's not enough to pick out a good-looking carpet or to plan some other floor treatment simply because its color and overall appearance looks good in the room. You must also consider how that floor treatment ties in with other planned and existing elements of the room design. That is, you must make sure the floor treatment is consistent with the style of the remainder of the room.

A room decor must be *believable* to be successful. A believable decor is a well-coordinated decor. In other words, all parts must work together to create the desired effect. All of the elements must tie in—that is, they must be consistent—with each other, as shown in Figure 6. In this bedroom, the formal furnishings require an equally formal floor treatment. Consider how this room would look is you chose a plaid rug, even if the colors were appropriate. A plaid rug wouldn't be

FIGURE 6—Floor coverings must be consistent with the decor in the rest of the room.

in keeping with the overall room plan, no matter how attractive the rug itself is. The room wouldn't be consistent—that is, it wouldn't be believable.

To make sure that your floor selection is consistent with the rest of the room, you must consider consistency in regard to

- Style
- Texture
- Mood

Consistency of style. Your floor treatment should be consistent with the style of the furnishings. Look again at Figure 6. The style of the rug in this bedroom is consistent with the rest of the furnishings.

As a beginning decorator, you should always plan rooms with consistency of style. As you learn more about the basics of decorating, you may begin to experiment with a mix of furnishings in various styles. This mixture is called *eclectic design.* Its success depends on particularly artful choices by the decorator, and it should be attempted only by an experienced decorator who has learned the fundamentals of design. Eclectic design depends on a certain consistency in selecting items for the decor.

Consistency of texture. Certain textures are appropriate for certain effects. Some textures go well with each other because they work together to create the same effect. Other textures used in combination are uncoordinated (unbelievable together) because each creates an effect that conflicts with the other.

For example, a plush velvet carpet doesn't go well with rough-textured denim draperies and furniture covers. These textures aren't consistent. The carpet is saying "this room is a formal elegant room," while the draperies and furniture covering are saying "this room is a casual, homey place." The person who stands in the room receives two conflicting messages.

Consistency of mood. If the existing or planned furnishings are intended to create a sophisticated mood in a room used for nighttime entertaining, it's easy to see that a cheerful, brightly colored rug or a rustic floor wouldn't be consistent

with the room. The furnishings and the floor treatment wouldn't be consistent with the desired mood, so the room design wouldn't be successful.

Consistency is one of the most important factors in developing successful interiors. If there's a secret to successful interior decorating, consistency is it. You probably have some favorite colors and styles. At least, you prefer some types of room decor over others. But when going through homes or looking through magazines or books showing pictures of rooms created by interior decorating professionals, you've found that you're able to like and admire many types of rooms that are totally different from what you personally favor.

You're able to appreciate what you see because it's well coordinated. And it's well coordinated because all of the elements of the room are consistent with the statement the room is making: "I'm a cozy, friendly room. Come in and curl up here" . . . "I'm a very elegant room" . . . "I'm a serene retreat" . . . "I'm a sleek, modern room—no dwelling on the past here" . . . "I'm a romantic room" . . . "I'm a spiritual room" . . . "I'm a very sensual room" . . . "I'm a mountain cabin hideaway." It doesn't matter whether these rooms contain colors and styles you particularly like. As long as everything in the decor is consistent, you can appreciate and accept the room.

There's one more factor of consistency involved in every room design. That's the people who occupy the room. They must fit in with the way the room has been decorated. That elegant room may be beautiful and successful when it's empty, but what happens when the casually dressed owner and his equally casual friends occupy it? Both the people and the room seem wrong, just as a person with a formal manner and very sophisticated style of dress may look out of place in a homespun country cottage.

For example, the elegant living room pictured in Figure 7 would probably be used for formal entertaining. If your clients have an active social life and often entertain in a formal manner, this room would fit their needs perfectly. On the other hand, if your clients enjoy having friends over to watch football games and have a type of tailgate party, then this room wouldn't be consistent with their needs.

FIGURE 7—Elegant rooms are often used for elegant affairs. (Photo courtesy of Thomasville Furniture Industries)

Always consider how a room is going to be used before you begin to decorate it. Then, choose flooring and furniture to be consistent with those needs. After much practice in the field, you may develop your decorator's eye and sense of consistency. Only then will you be able to apply the standard of consistency much more subtly.

The Stones beneath Your Feet

The Living House in the United Kingdom offers a wide selection of high-quality flooring. Visit their Web site at

http://www.livinghouse.co.uk/

Click on some of the links to view a variety of flooring materials.

Lighting and Floor Covering

Both natural and artificial light affect the appearance of floor covering, just as they affect all of the furnishings in a room. The effect of light on color is of major importance in all aspects of interior decoration. You should be conscious that lighting does affect color, right from your first consideration of materials for interior decoration.

The amount of natural light entering a room affects the appearance of the color of its floor covering. A light or bright color will look even lighter or brighter if bright sun enters the room. A dark or dull tone will look even darker in a room that receives little natural light. For example, study the two rooms in Figure 8. The room on the left has only one small window behind the desk; the room on the right has two walls of solid windows. The colors in these two rooms will be affected by the amount and type of light they receive.

Artificial light alters the apparent color of floor covering even more. You've probably noticed that colors appear different under fluorescent light than they do under incandescent light (the light from ordinary light bulbs).

FIGURE 8—Light, whether natural or artificial, affects the colors in a room. When choosing floor coverings, you must consider the light a room receives.

The amount of artificial light, the distribution of the light, and the color tone of the light influence the appearance of the floor covering. You must consider all of these factors when selecting floor covering for any room.

Factors in Selecting Floor Treatments

With such a wealth of materials on the market, how will you know where to begin making a selection? Here are some questions to answer as you consider the choice of flooring for any room:

- What is the main purpose of the room?
- Is there more than one major use for the room?
- Would it be more satisfactory to provide one floor covering that can stand up to all uses of the room or to provide two separately covered areas?
- What kind of traffic will the room have?
- Will the room be used by formally dressed guests? By children?
- Is moving equipment stored in this room?
- Do people enter this room directly from the outdoors? If so, is it in a region where weather conditions are sometimes severe?
- Does the room open onto another room with a totally different use?
- Will strong sunshine flood the flooring, subjecting it to fading?
- Does the room need sound control?
- How much time and attention are your clients willing to give to floor maintenance?
- What is the maximum amount your clients are willing to spend for this part of the furnishings?

When you have the answers to these questions, you'll find that you've narrowed the choices of floor treatments somewhat. The next consideration is appearance. What floor treatment will look best in the room? To answer this question, you need to consider the room as a whole.

How to Look at Floor Covering Samples

A professional interior decorator learns to look at samples of materials in a manner different from the ordinary person. Many inexperienced people who attempt to do their own decorating are surprised to find that selections they made from samples don't look as they expected them to look. This result occurs because they haven't considered three important factors in inspecting samples:

- Size
- Relativity
- Light

Size. Since a sample is much smaller than the actual material, it doesn't give an accurate impression of the effect a larger piece of the material will have. When you examine a small sample of material—say, 1 sq ft (square foot) or less—you don't see the same color picture you would if you were looking at a large piece of the same material—say, 12 ft × 18 ft. When looking at a small sample, you must consider that everything about the sample will be even more prominent when it's enlarged. A color that appears bright on the sample will appear even brighter when it covers the entire floor of a room. A color that appears dark on a sample will appear darker when seen in room size. A pattern that appears bold in a sample will appear much bolder in room size. A high gloss will look even more pronounced when a large area of the material is being exposed to light, while a dull finish may look even flatter in a larger expanse.

Relativity. Because of the way the eye perceives color, a color appears different depending on the color next to it. Suppose you're looking at a piece of blue-green carpeting while seated at a walnut table. The brown of the walnut table surrounding the sample makes the sample color look

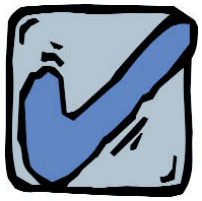
different than it would against a white tablecloth or against carpet samples of other colors. This example illustrates why it's a mistake to line up color samples and compare them side by side when making a selection.

To truly judge the color of the floor covering sample, you should view it alone against a larger background sample of the color of the walls. The eye can then see how the sample floor color looks in relation to the wall color without any extra colors influencing its appearance.

Light. A floor covering sample should be viewed under the same lighting, both natural and artificial, of the room in which it's to be used. The lighting in a carpet showroom or tile salesroom, or even in your own home or office, may be entirely different from the lighting in the room for which the material is intended. The lighting can change the appearance of the sample substantially. So take samples to the room being decorated before making a final choice.

If you learn to inspect samples with these three points in mind, you'll be using samples like a professional.

In the next section of this study unit, you'll examine the variety of materials available for floors. Before going on to that material, please complete *Self-Check 1.*



Self-Check 1

At the end of each section of *Floors,* you'll be asked to pause and check your understanding of what you've just read by completing a "Self-Check" exercise. Answering these questions will help you review what you've studied so far. Please complete *Self-Check 1* now.

1. Your client wants a particular fabric used on pillows for the sofa. Unfortunately, the fabric doesn't work well with the carpeting you and your client have selected. You haven't yet placed an order for the carpeting. What should you do?

   _____

   _____

   _____

2. What sort of effect does a very pale floor create in a room?

   _____

   _____

3. What would be a good floor treatment for a room that's small and broken up in appearance?

   _____

   _____

4. If the noise level in a room is high, what floor treatment will *best* absorb the sound?

   _____

5. If an existing floor treatment is outstanding in appearance, how should the decorator handle the room decor?

   _____

   _____

(Continued)

Self-Check 1

6. What is eclectic room design?

   _____

7. In what three respects should a room decor be consistent?

   _____

8. To be sure you're viewing floor covering samples properly, what three factors should you consider?

   _____

Check your answers with those on page 85.

FLOOR COVERINGS

Choosing floors and floor coverings would be relatively easy if you had only a limited selection of materials. But in carpeting alone, the range of fibers, textures, patterns, and quality varies immensely. Only by going out to see what's available can you keep up with even part of the array of choices.

In this section, you'll study the types of materials available, their suitability for various uses, and points to consider in selection and installation. When you know about materials, you can have the pleasure of creating interesting flooring design effects. You'll make selections for your clients with confidence that you're doing so on a sound basis.

Carpeting

Wall-to-wall carpeting remains a popular choice to bring softness, warmth, and comfort to an interior. Most people will continue to choose wall-to-wall carpeting for its ability to make small rooms look larger, its ability to blend in with many different decorating schemes, its comfort, and its ease of day-to-day maintenance. Figure 9 shows a small sampling of the variety of carpeting styles and colors available to decorators today.

FIGURE 9—Color and Style Variety in Carpeting
(Photography provided by Karastan Rug Mills)

In addition to adding color and style to the decor of a room, carpeting can also provide sound control where it's needed. Carpeting on an upper story muffles the sound of footsteps that might otherwise disturb people in the rooms below. This property makes carpeting especially desirable in apartments in multistory buildings. It also serves to absorb some sound within the room.

Fibers

Most carpeting is made of wool or synthetic fibers or a combination of both.

Wool. Wool is still considered the most luxurious of carpeting materials. Since it dyes well, the resulting colors are quite beautiful. However, wool carpeting is generally the most costly, and it's not as durable as the synthetics in its resistance to moisture, soil, and insects. In addition, some people are allergic to wool. This consideration is a point to check with your client if you're thinking of installing wool carpeting.

Despite its few drawbacks, wool remains the top-grade carpeting to many people. However, it accounts for a very small percentage of current carpeting installations.

Synthetics. Most carpeting is made of synthetics. Man-made fibers, which are less expensive than wool, have some qualities that make them preferable to wool in certain areas of a home. Nylon represents about 80% of carpet sales. It's one of the strongest fibers available. Like other synthetics, it's not affected by mildew or moths, making it ideal for areas where dampness may be a problem. Nylon also offers durability and stain resistance. Acrylic, polyester, olefin (polypropylene), modacrylic, and rayon are other synthetic fibers commonly used for carpeting.

Blends. Synthetic fibers may be blended with each other or with wool to create a mixture that has the assets of each type. It takes 20% or more of each fiber in the blend to make individual fiber characteristics noticeable. For example, 30% nylon added to wool is sufficient to affect the carpet quality. It gives the finished blend some of the desired characteristics

of nylon while preserving those of wool. Always check carpeting labels to identify fiber content. All fibers that make up more than 5% of the rug's fiber content must be listed on the label.

Static Electricity

Static electricity can be a problem with carpeting. The friction of shoe soles against the carpet builds up an electrical charge that's released as a shock when the person touches an object or another person. Static is an unpleasant problem in rooms with low humidity. It's typical in heated rooms.

Antistatic sprays can be used on carpets where static occurs. In addition, an antistatic carpeting is made especially to avoid this problem. If your client has been living under "shocking" conditions, an antistatic carpeting may be just the thing to solve the problem.

Textures and Patterns

Carpet textures vary from smooth and velvety to rough. Some carpets have a combination of texture and varying heights which form patterns. Such texture patterns can add interest without adding extra colors to the room.

Most carpeting manufactured today is *tufted.* That is, yarn is pushed through a backing by a series of needles to form loops, or *tufts,* which are securely fastened to the backing with an adhesive. The quality of carpeting is determined by the type of yarn used and the number of tufts per square inch. The greater number of tufts, the higher the quality of carpet. High-quality yarn, closely tufted, makes the best and most expensive carpeting.

Carpets are available in three types:

1. Loop carpet
2. Cut-pile carpet
3. Cut and loop pile carpet

Each of these three types has variations that provide a wealth of selections for any interior decorator. Let's examine each type individually.

Loop carpet. A *loop carpet* results from the tufting process. It consists of loops of yarn that stand upright (Figure 10). Long loops create a nubby texture, while short loops create a smoother surface. *Level-loop carpets* have loops that are all the same length (view A). *Multilevel-loop carpets* have loops of different heights (view B). The varying heights create a pattern in the carpet.

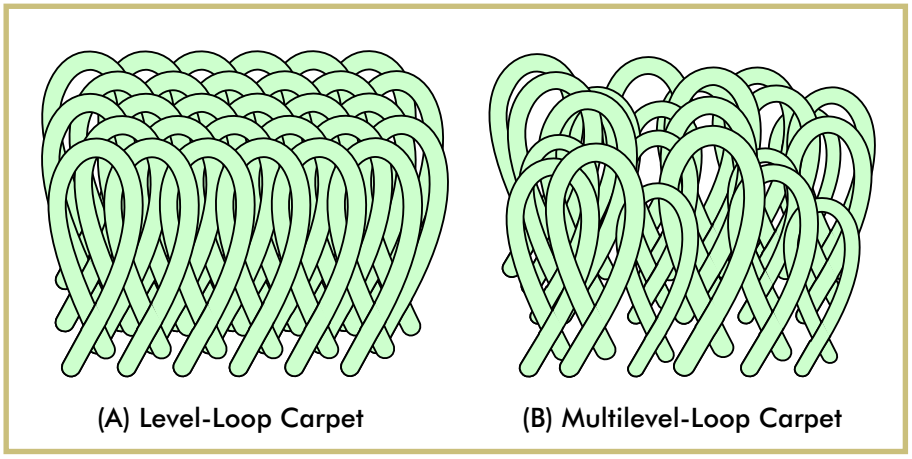


FIGURE 10—The loops in a loop carpet can be of the same length, as shown in view A, or they can be of varying lengths, as in view B.

Berber carpeting is a specific type of loop carpet that uses thick yarns that produce a nubby appearance with a geometric design.

Level-loop and multilevel-loop carpets are rather casual in style, but are quite durable. They're appropriate for family rooms and high-traffic areas, including stairs. Multilevel-loop carpets have the added advantage of hiding footprints and soil. Commercial carpet, or *contract carpet,* usually has this type of sturdy pile. It can withstand lots of use in public places such as hotels and schools.

Cut-pile carpet. *Cut-pile carpet* begins as a loop carpet, but then the loops are cut, resulting in pieces of the yarn standing straight up. Figure 11 illustrates several types of cut-pile carpet.

Shag carpeting is a type of cut-pile carpet with high-level cut pile (view A). *Plush carpeting* has a shorter level of pile and is quite *dense*—that is, it has a high number of closely packed yarn tufts (view B). Plush carpeting has a smooth surface

and feels soft and luxurious. *Frieze* (pronounced free-ZAY) *carpeting* is also a type of cut-pile carpet with dense, low pile. The yarns are curled or twisted (view C).

Plush carpeting is suitable for use in rooms where formal fabrics, like silks and satins, are used. It shows footprints and vacuum cleaner marks. Plush carpeting should be used in areas of low traffic. Because of the twisted yarns, frieze carpeting doesn't show footprints. It's appropriate for any informal setting.

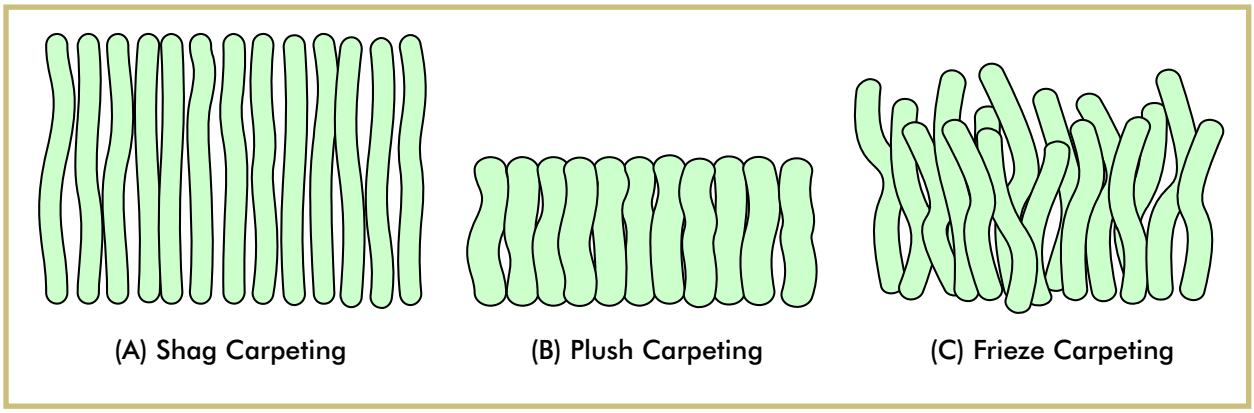


FIGURE 11—Cut-pile carpeting has individual yarn tufts. Various types include shag carpeting (A), plush carpeting (B), and frieze carpeting (C).

Cut and loop pile carpet. The style of carpeting known as *cut and loop pile* combines the features of both loop and cut-pile carpeting (Figure 12). It consists of some yarns that are cut and some that are left uncut (that is, as loops). This combination creates a pattern in the carpet. Cut and loop pile carpeting is appropriate for formal and informal rooms.

Although not as popular, this type of carpet is also available as a multilevel cut and loop. Many levels of cut and uncut loops give the surface a sculptured appearance.

Cut and loop pile carpeting is ideal for high-traffic areas and stairs. The textured pattern of the pile helps to hide soil.

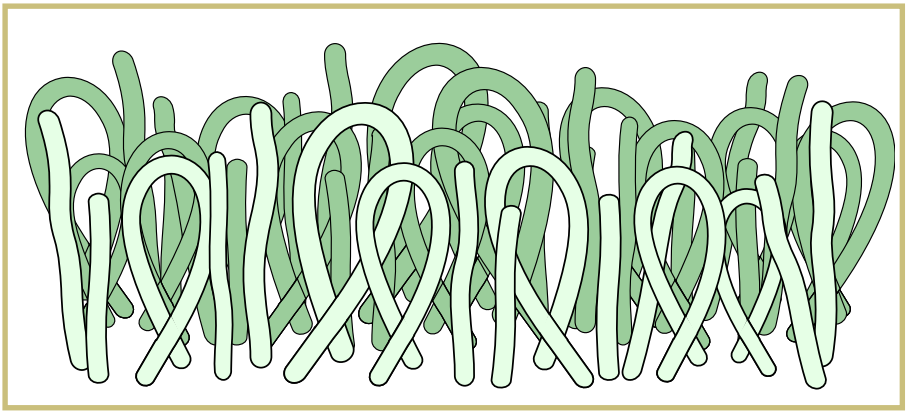


FIGURE 12—Cut and loop pile carpeting creates a design in the surface of the carpet.

Is Carpet Out of Fashion?

For decades, carpet was definitely out of fashion, but those days are finally over. Today, carpets offer so many options in pattern, texture, color, and ultrasoft fibers that they have an undeniable appeal. Carpets are also the least expensive floor covering.

Installation costs for carpet are much lower than for hard flooring. And if clients are worried about getting stuck with a single color or pattern, be sure to remind them that they can always lay rugs over a carpet for a layered look.

Brand Names and Grades

All reliable carpeting manufacturers label their products with a brand name or company name. These labels indicate to potential customers the manufacturer's standards of quality in both the choice of raw materials and the methods of production.

A brand name doesn't refer to just one quality of carpeting, however. A brand usually includes different grades of carpet at different price levels. Each grade has its own quality standard.

The grade, or quality, of the fiber used, the twist of the yarn, the fastness of the dyes, and the density and height of the pile determine the quality and cost of carpet. Figure 13 defines terms commonly used in carpeting manufacture.

Carpet Manufacturing Terms

As an interior decorator, you'll find yourself learning some terms used in various manufacturing industries. You need to know these terms so you can identify and communicate with suppliers about various materials you use.

In the case of carpeting, the following terms are some of the ones you'll run into when reading carpeting catalogs containing manufacturers' specifications. Take a moment now to understand these terms.

YARNS

Plied yarns are used in making carpet. The term *plied* means that two, three, or more single strands are twisted together to produce a final yarn strong enough to meet the requirements of carpet.

Novelty effects are gained by treating the yarns in different ways. For example, two yarns of different colors may be twisted together to produce a *Moresque* (Moorish), or pepper-and-salt, effect in the finished carpet.

Soil-resistant means the carpet yarn has been chemically treated to simplify the care and cleaning of the finished carpet. It doesn't mean that the carpeting won't soil at all.

DYEING

Because carpets are dyed with the best dyes, they have exceptional colorfastness. Dyeing takes place at various stages of production, depending on the results desired in the finished carpet.

Stock dyeing is the process of dyeing a large amount of yarn of the same color and quality before it's spun into yarn.

Skein dyeing is the process in which smaller amounts of a color are dyed in skein form (that is, after the yarn is spun).

Piece dyeing is a method in which a carpet or rug is dyed after it has been made. This method is often used to produce solid colors. In the case of patterned carpets, some less costly carpets are simply surface dyed after they've been made.

LOOMING

Some carpet salespeople use the term *broadloom* to point out the supposed virtues of a particular carpet. Broadloom has nothing to do with the quality of a carpet. The term simply means that the carpet was made "on a broad loom," which means that it's more than 27 in. (inches) wide.

FIGURE 13—Carpet Manufacturing Terms

Carpeting is one of the client's single most expensive home furnishing purchases. You should encourage your clients to spend whatever they can to get the best possible quality. It will pay for itself in better appearance, in less maintenance, and in considerably longer life.

Although the United States has no official carpet classification system, other countries may have. For example, most carpeting made in Canada has a classification label on it. Lack of such a label indicates either that the manufacturer hasn't submitted the carpet to the Canadian Carpet Institute for classification or that the carpet failed to meet qualifications for receiving a label.

Carpet Padding

Padding is almost always installed beneath carpeting. Carpet pads create an additional cushion between feet and hard flooring. They help muffle sounds, insulate against heat and cold, resist mildew, and prolong the life of the carpet. Padding for rugs and carpets is usually purchased separately from the carpeting.

If a client desires a sense of true luxury, a good-quality, dense pad is your best choice. Density, not thickness, is the most important element to look for when specifying padding. Always make yourself aware of the carpet manufacturer's padding guidelines. The wrong choice of padding may void your carpet warranty. You wouldn't want to purchase a 4-year warranted pad to be used with a 25-year warranted carpet.

Some padding produced today is causing "sick-building syndrome" due to the material contents used in the manufacturing process. Be sure your choice of padding contains no VOCs (volatile organic compounds), which may be toxic.

The three major types of carpet padding are

- Foam
- Rubber
- Fiber

Foam padding is available in three types. The most common type is *rebond,* which is made from scraps of high-density foam that are bonded together. In many cases—especially in high-traffic areas—rebond padding breaks down under the carpet, causing flat spots and possible damage to the carpet. Other types of foam padding are *prime* and *froth.* Both prime and froth are similar to rebond, except they're constructed as one solid piece rather than from bits of scrap foam. Froth foam padding can be used with any type of carpeting and is made of dense urethane, making it extremely durable. More importantly, it has no VOCs, so it's a better and healthier choice.

Rubber padding is available as either a flat padding or a waffle design. Waffle padding is a popular choice in spite of the fact that it flattens out over time. It's also too soft for some of today's plastic-backed carpets. For long wear and the ultimate in luxury, a good choice is slab rubber padding. Unlike the waffle rubber padding, slab rubber doesn't contain ripples of air. It resists furniture crushing and indentation for a long period of time.

Carpet Cushion Council

For more information on carpet padding specifications, visit the Web site of the Carpet Cushion Council at

http://www.carpetcushion.org

Carpet Installation

Stripping. Wall-to-wall carpet is fastened to the floor with *tackless stripping* (Figure 14). The stripping consists of strips of wood 1 in. wide, through which a series of sharp pins have been driven. The strips are nailed to the floor, against the wall or baseboard. The pins are set at an angle so that when the strips are nailed down, the pins will point upward toward the wall or baseboard. When laid, the carpet is stretched fairly tight and hooked onto the pins. The result is a smoothly installed carpet without visible tack heads. The pins hold the carpeting in place. Labor charges for installation are often combined with the price of tackless stripping.

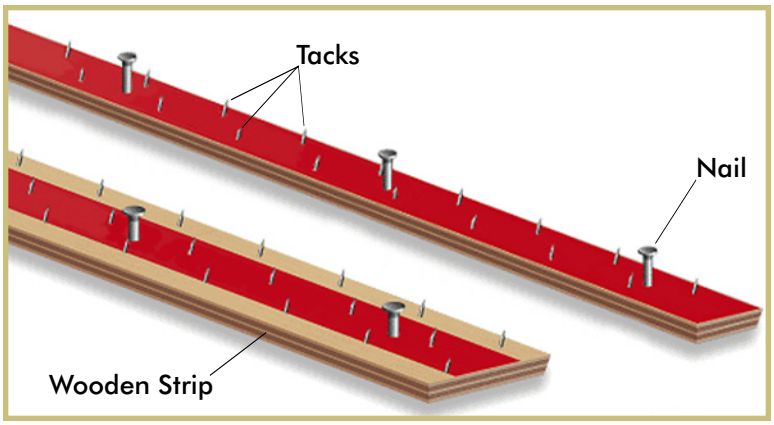


FIGURE 14—Tackless stripping is nailed along each wall before wall-to-wall carpeting is installed. The pins in the stripping hold the carpeting in place.

Metal stripping is sometimes used to protect the edges of the carpet at doorways leading to noncarpeted rooms. Such stripping is also used at the top of stairways to prevent fraying at that edge, as well as to prevent the occupants of the house from tripping over the otherwise exposed edge of the carpet.

Binding. *Binding* is a process that adds a decorative look to the edges of a carpet, and it prevents the edges from fraying. A piece of carpet can be bound by stitching along the raw edges, or by applying a piece of binding material. If binding is used, it's generally charged by the yard.

Door sanding. When a floor covering is installed in a room, it raises the level of the floor somewhat. After a carpet is installed, doors may no longer open and close freely. In such cases, the doors must be taken off their hinges and sanded or planed on their bottom edges until they can swing freely. Sanding or planning the doors is important for two reasons. First, it makes the operation of the door comfortable. Second, if the door isn't sanded, it will rub on the carpet as it's opened and closed, causing the carpeting to wear. Before a carpet installer leaves the job site, test all doors for free movement. Put your ear toward the floor as you swing each door. If you hear even a slight rubbing noise, insist that the door bottom be shaved further.

Ripples. Occasionally, newly installed carpeting develops ripples and bulges, usually because the carpet hasn't been laid sufficiently taut. Rippling can also be caused by pulling furniture across the rug or even by heavy foot traffic.

Because some backing yarns show slight changes in length with changes in humidity, carpet may expand slightly in damp weather and contract slightly in dry weather. This slight change has little effect on a small (less than 20 ft) wall-to-wall carpet installation. However, in a large wall-to-wall installation, these small percentage changes may be sufficient to cause puckers or wrinkles during periods of high relative humidity. Noticeable shrinkage from the wall may occur in dry weather, particularly if the carpet isn't properly laid.

The answer to the problem of wrinkling is to lay the carpet under proper tension so that it's stretched into place. Under these conditions, it will relax without expanding in damp weather. In dry weather, the fastenings will absorb contraction stresses.

Ripples can sometimes be corrected by wetting backing yarns or by restretching the carpeting with a power stretcher. However, they may recur the next time moisture is present, in which case restretching must be repeated.

Avoid making wall-to-wall installations during unusually damp or dry weather. In very dry weather, carpet must be laid under considerably greater tension than usual to account for the expansion that will occur as humidity later increases.

Measuring for Carpeting

Carpeting is normally sold by the square yard. Therefore, to estimate the cost of carpeting a room, you must determine the number of square yards needed. The following table gives the metric and English conversions to find square yards.

METRIC/ENGLISH CONVERSION CHART		
English to Metric		
When You Know	**Multiply by**	**To Find**
inches (in.)	2.54	centimeters (cm)
feet (ft)	30	centimeters (cm)
yards (yd)	0.9	meters (m)
square inches (in^2)	6.5	square centimeters (cm^2)
square feet (ft^2)	0.09	square meters (m^2)
square yards (yd^2)	0.8	square meters (m^2)
Metric To English		
When You Know	**Multiply by**	**To Find**
meters (m)	1.1	yards (yd)
meters (m)	39.37	inches (in.)
square meters (m^2)	1.2	square yards (yd^2)

To find square yards, measure the length and width of the room in feet or meters, using a yardstick or folding ruler. Multiply these two figures to get the number of square feet or square meters.

Example 1: A room measures 9 ft × 12 ft. What is the square footage of this room?

Solution: Multiply 9 ft × 12 ft.

9 ft × 12 ft = 108 sq ft

Answer: 108 sq ft

Example 2: A room measures 2.74 m × 3.66 m. How many square meters does this room measure?

Solution: Multiply 2.74 m × 3.66 m.

2.74 m × 3.66 m = 10.03 m^2

Answer: 10.03 m^2

Once you have the number of square feet or square meters, you must change that calculation into square yards. Remember that carpeting is sold by the square yard. To change square feet into square yards, divide the number of square feet by 9 (1 sq yd = 9 sq ft). In Figure 15, each small block represents one square foot. The entire diagram represents one square yard.

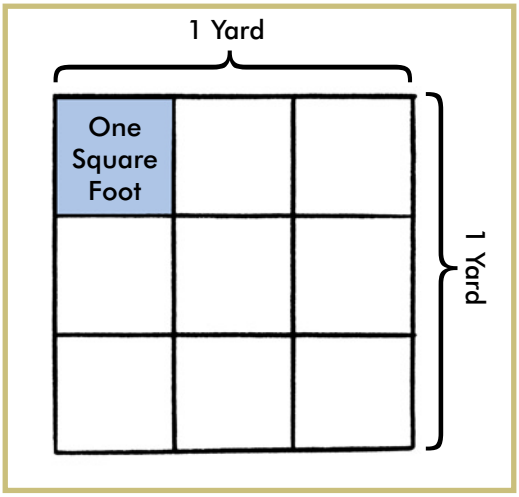


FIGURE 15—A square yard is a square that measures 1 yd, or 3 ft, on each side. This square yard is divided into square feet. As you can see, 1 sq yd = 9 sq ft.

Example 3: How many square yards of carpeting would you need to cover 108 sq ft?

Solution: Divide 108 sq ft by 9 to find square yards.

108 ÷ 9 = 12

Answer: You need 12 sq yd of carpeting to cover the floor.

In Example 2, you determined the number of square meters in a room. To change this number into square yards, multiply the number of square meters by 1.2 (1 m^2 = 1.2 sq yd). (See the conversion table.)

Example 4: How many square yards of carpeting would it take to cover 10.03 square meters?

Solution: Multiply 10.03 by 1.2 to find square yards.

10.03 × 1.2 = 12.07

Answer: You should round up to the nearest square yard to estimate cost, so it will take 13 sq yd of carpeting to cover the floor.

Estimating Cost

After you know the number of square yards you'll need to cover the floor of a room, you can estimate the cost of the carpeting. First, you must find out the price per yard of the carpeting you intend to use for that room. Then, multiply the price per square yard by the number of square yards required.

Example 5: At $20.00 per yard, how much would it cost to cover 12 square yards?

Solution: If the room needs 12 sq yd, and the carpeting sells for $20.00 per square yard, multiply $20.00 by 12 yd.

$20.00 × 12 yd = $240.00

Answer: The cost of the carpeting will be $240.00.

Although carpeting is generally sold by the square yard, you'll occasionally find special carpeting, such as the indoor-outdoor variety, as well as other flooring materials, priced by the *linear foot.*

In such a case, the carpeting is available only in a specified width, such as 12 ft. The cost per linear foot, or *running foot,* is the cost for each 1 ft by (in this case) 12 ft of the carpeting.

Example 6: Suppose you want to carpet a room 9 ft × 10 ft. The carpeting is 9 ft wide and sells for $12.00 per linear foot. What will the carpeting cost?

Solution: Since the carpeting is 9 ft wide, it will fit one dimension (9 ft) exactly. Therefore, you'll need 10 linear ft of this carpeting (Figure 16, view A).

To find the cost, multiply the number of linear feet needed (10) by the cost per linear foot ($12.00).

10 × $12.00 = $120.00

Answer: The cost of the carpet is $120.00.

If the width of the carpeting is greater than the larger dimension of the room, use the smaller dimension to determine the number of linear feet needed.

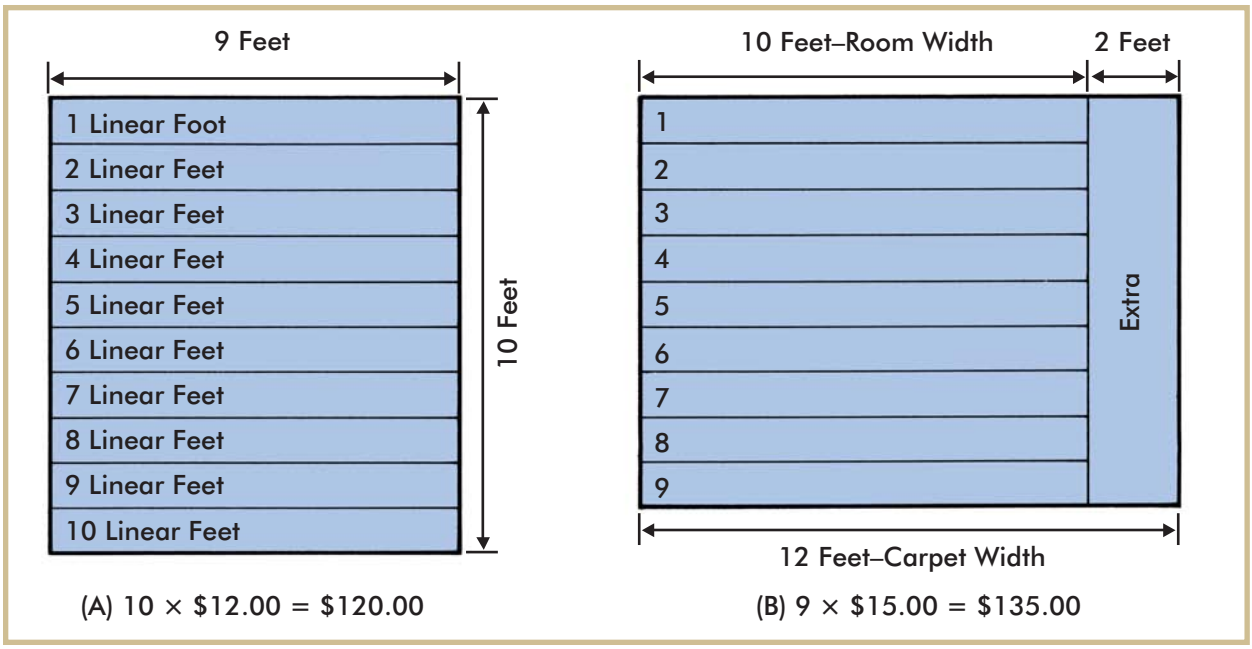


FIGURE 16—Calculating the Amount and Cost of Carpet Sold by the Linear Foot

Example 7: Suppose you're working with the same room of 9 ft × 10 ft. The carpeting is 12 ft wide and sells for $15.00 per linear foot. The width of the carpeting (12 ft) is greater than the larger dimension of the room (10 ft). Use the smaller dimension to determine the number of linear feet needed. In this case, you'll need 9 linear feet of the carpet (Figure 16, view B). What will the carpeting cost?

Solution: Multiply the number of linear feet needed (9) by the cost per linear foot ($15.00).

9 × $15.00 = $135.00

Answer: The cost of the carpeting is $135.00.

Example 8: Let's look at one more example. Suppose the room you're carpeting is 3.6 m × 4.2 m. The carpeting is 15 ft wide and sells for $11.00 per linear foot. What would be the price of the carpeting for this room?

Solution: First convert the meters to feet. From your conversion chart, you find that you must multiply the number of meters by 3.28.

3.6 m × 3.28 = 11.8 ft

4.2 m × 3.28 = 13.8 ft

Therefore, the room is approximately 12 ft × 14 feet. The width of the carpeting (15 ft) is greater than the larger dimension of the room (14 ft). Use the smaller dimension to determine the number of linear feet needed. In this case, you'll need 12 linear feet of the carpet. To find the cost, multiply the number of feet needed (12) by the cost per linear foot ($11.00).

12 × $11.00 = $132.00

Answer: The cost of the carpeting for the 12 ft × 14 ft room is $132.00.

In determining the cost of the carpeting to the client, you must also consider these points:

1. Is the quoted price per square yard the price to the decorator or is it the retail price? You'll need to adjust the price to the client according to your fee method.

2. Does the price include padding and tackless stripping? Will the job require any binding or metal stripping? Does the cost per yard include installation labor? If not, the cost of each of these must be determined and added to the total cost.
3. Will there be remnants of the carpeting to give the client for future use? Frequently, the floor area in which the carpeting is installed isn't perfectly rectangular or square. A piece of the carpeting may be cut out to accommodate a fireplace hearth, a staircase, or some other irregularity. Your client should be left with a small quantity of this extra carpeting for future use, possibly to repair or cover a damaged or worn spot. This consideration is important in any carpeting installation, but it's especially important if the carpeting you're ordering is a discontinued style. If the remnant is large enough, you may suggest that the client have the edges bound and use the piece as a mat at a heavy-traffic doorway. The client can remove the mat when entertaining guests.
4. Is the chosen carpeting manufactured in a narrow strip with a repeating pattern? Some carpeting is manufactured in widths as narrow as 27 inches. A *repeating pattern* is one in which the design is continually repeated along the length of the carpeting. When installed in strips, such as 27-inch widths, you may need more carpeting to match the pattern. A certain amount of carpeting is wasted in installing each additional strip so that the pattern matches the that on the preceding strip. The amount wasted depends on the distance between pattern repeats.

You're apt to run into the question of pattern repeats only when dealing with some rare and costly strip carpeting. In such cases, you should have the actual measurements made by the professional installer, who will know how to figure the repeat allowance most economically. For the purposes of making your cost estimate, calculate the cost of the carpet you'll need to cover the floor. Then, simply add the phrase "plus repeat coverage" to the figure. Explain to your client what the phrase stands for.

Rugs

When you hear the word *rug,* what comes to mind? Do you see an oval braided rug in an Early American sitting room? A beautifully designed tapestry rug hanging on a wall in a room full of carefully chosen art objects? A large Oriental rug of jewel-like colors and intricate design in a room that contains fine old wood pieces and shining crystal? A woven rug of natural fibers? A rug is all of these and many more. It can set the mood and the style in a room. A rug may be used over any kind of flooring—even over carpeting.

What's the difference between a rug and a carpet? Sometimes, the words are used interchangeably. However, the distinction is made this way: *Carpet* or *carpeting* is the correct term for fabric cut to shape for wall-to-wall installation and fastened to the floor. A *rug* isn't attached to the floor and isn't cut to conform to the shape of the room. Its size and shape are determined by the manufacturer.

Rug Sizes

Rugs may be any size. Small rugs are referred to as *throw rugs* or *scatter rugs.* Rugs that cover a large portion of the floor are called *area rugs.* The largest rugs, those covering most of the floor surface in a room, are called *room-size rugs.* A *braided rug* is an Early American rug made from cloth or yarn braided into strips, shaped into a flat oval form, and sewn together.

Common stock sizes for rugs (in feet) are

- 2 × 3
- 3 × 5
- 4 × 6
- 6 × 9
- 8 × 10
- 9 × 12
- 10 × 14
- 10 × 16
- 12 × 15
- 12 × 18
- 12 × 20

Generally, a room-size rug should be selected so that 8 to 12 in. of flooring is exposed around the edges of the room. The larger the room, the larger the border should be. For best effect, the shape of the rug should follow the shape of the space it occupies. In other words, a rectangular rug should be selected for a rectangular room, and a square rug should be selected for a square room. Area rugs vary in shape according to the shape of the area and the furnishings for which they're selected.

Rugs have an advantage over wall-to-wall carpeting in that they can be turned around to equalize wear. They can also be sent out to be cleaned professionally, and any slight shrinking or stretching won't adversely affect their fit in the room.

Uses for Rugs

In open-plan houses, where one area flows into another, rugs can be used to define specific functional areas. They can hold furniture groupings together. Unlike carpeting, they're versatile. They can be moved from one room to another and from one house to another. They can be used to balance a room, to emphasize a particular part of the decor, or simply to add warmth to the floor.

Rug Materials

Rugs are available in a wide variety of materials, weaves, textures, and patterns. They range from inexpensive little mats to expensive works of art that can be displayed in museums or used in the finest homes until they're threadbare.

Any natural or man-made fiber used for carpeting may be used for a rug, but only the strongest, most durable fibers will stand up to daily wear in an average household. The most widely used natural rug fibers are wool and cotton. Hemp, rush, and sisal are also popular whenever people's tastes swing back to natural materials. Hemp and rush squares joined to form large rugs can bring a natural feeling into a room.

Wool is considered by many to be the finest fiber available for rugs, just as it is for carpeting. Top-quality wool is durable and can be dyed any color. It requires no special pampering,

but it should be protected from moisture and moths. Wool rugs generally have a tightly woven backing made of jute, although a synthetic backing may be used for some machine-made rugs.

Cotton is also commonly used for making rugs, although it's not suitable for large rugs or for high-traffic areas. Cotton is relatively inexpensive and durable, but it mats quickly, making it look unsightly.

Oriental Rugs

The term *Oriental rug* applies to any carpet woven by hand in the Near East or the Far East. These rugs are usually made of wool, goat's hair, or camel's hair. They sometimes contain silk or cotton. Oriental rugs come in several different types of weave patterns and many colors, depending upon the influence from the area in which they're made. Aside from being practical, they're works of art that feature imaginative and symbolic designs. There are also excellent and less costly American or domestic "Oriental" rugs that are manufactured to look like the real ones. Usually these rugs are knotted and have a fairly short pile, or surface.

In a knotted rug, the pile is formed by the ends of the threads knotted around the *warps,* with the *weft* threads serving merely as binders. Warp refers to the series of lengthwise threads; weft refers to the crosswise threads that are woven across the warp (Figure 17).

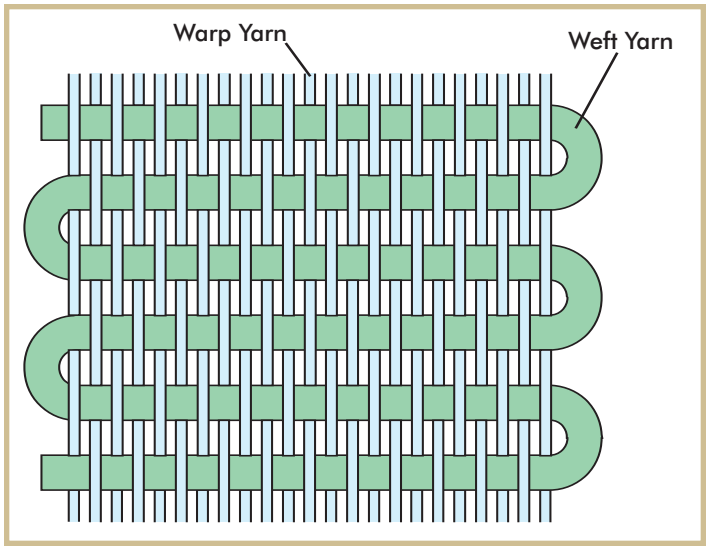


FIGURE 17—The threads that run lengthwise in a woven fabric are called the warp; the threads that run crosswise are called the weft.

The quality of an Oriental rug is determined either by the knots per square inch measure or by the *line count.* China measures the number of knots by the line count. The line count equals the number of knots in a linear foot measured across the width of the rug. A 120 line count has 120 knots in a linear (or running) foot across the width of the rug. In both methods of counting knots, the more knots within a given area, the better the quality and the better the wear. The *Isfahan rug,* woven with wool pile on silk warp and weft, is one of the finest Iranian rugs in the world, with over 450 knots per square inch.

When buying an Oriental rug, make sure you purchase it from a well-established, reputable dealer with knowledge and expertise in this area. Antique rugs, or rugs imported before 1986, can be found at auctions and through private dealers and collectors.

The best-known rug-weaving areas of the world include Turkey, Iran, Afghanistan, Pakistan, India, and Nepal. Each country, as well as each area in the country, has a specific trademark as to the type, style, and symbolism used in the weaving process. For example, Oriental rugs from areas such as Asia Minor, Caucasus, Persia, and India often use the *Ghiordes* (GHE-or-duhz) *knot* in the weaving process. This type of knot, also known as the *Turkish knot,* ties pile yarns. The yarn is set over two warp threads, passed behind them, and then brought up between them. The pile lies somewhat parallel to the warp, and the back becomes rather nubby. Although there are as many different patterns and styles of Oriental rugs as there are villages that are known for their weavers, you should be familiar with a few basic styles.

The Herez, Joshigan, Mahal, Bijar, and Serapi are Iranian rugs, made since the mid-sixteenth century. These rugs are known primarily for their rich colors with a predominance of red and blue, and a strong use of the earth tones such as rust, gold, and ivory. They have wonderful geometric patterns with symbols indicative of the rug style. The traditional rug represents the Indian fondness for landscapes, flowers, and human and animal forms. The designs are elaborate and delicate, with many curved lines.

Also from Iran are the Kashan, Sarouk, Feraghan, Serabend, Shirvan, and Tabriz designs. The *Shirvan* (SHER-van) is an Oriental rug made of cotton and wool. The dark blue and red colors feature swans, rams' heads, rosettes, geometric lines, and stars.

The *Sarouk* (SUH-rook) is a Persian rug from Iran. It has a cotton foundation and short wool pile. It's quite large and heavy. Flowers, vases, and the tree-of-life motif make up the design. Colors often used in this design include deep blue, rose, green, and gold. Study the Sarouk examples in Figure 18, and you can see the wonderful variety of rich colors and geometric patterns.

FIGURE 18—Iranian Sarouk Rugs (Photo courtesy of Charles W. Jacobsen, Inc.)

The *Tabriz* (TUH-breez) is a Persian rug from Tabriz, a chief rug center in Iran. Constructed of many knots, the hard pile is made of wool on a cotton foundation. Scenes of hunts, animals, flowers, and medallions decorate this rug, which has a background of cream, blue, or red.

Turkish rugs include fine wool rugs and wool-on-cotton rugs. The village of Hereke has produced some of the world's finest silk rugs. Considerably more unusual and varied, Turkish rugs are of extremely high quality and dramatic design. Turkish rugs, made by the Turks since the twelfth century, are known for a knotted pile called *Turkey work.* The older rugs have a geometric design, while newer ones have floral patterns. It's rare to see human or animal shapes used in these rugs because the Muslim religion banned the depiction of living creatures.

The all-silk Turkish *Herekes* are among the finest, most tightly woven rugs produced. The Hereke rug in Figure 19 illustrates the artistic expression within this work of art. An area rug like this can create a color scheme and set the mood for an entire room!

FIGURE 19—Turkish Hereke Rug (Photo courtesy of Charles W. Jacobsen, Inc.)

Smyrna (SMER-nuh) *rugs* are also Turkish rugs made in the late nineteenth century. They typically have a cream or light gray background with flowers in green or pink.

Turkoman rugs, another major group of Oriental rugs, were first discovered in the thirteenth century by Marco Polo. They're mostly made by nomads from northern Iran, southern Russia, and eastern Tibet. These rugs are called the *red group* because of the predominant use of that color.

In the past, Iran was the primary source for handwoven rugs in the United States. Names such as Tabriz, Sarouk, Kirman, Kashan, Feraghan, Herez, and Hamadan were styles of Oriental rugs imported from Iran. The *Kirman* (KHER-mahn)

style is characterized by elaborate designs of flowers (particularly roses), animals, and historical people. It's colored in various dark tones and pastels.

The *Kashan* (KUH-shahn) style is made of as many as 40,000 knots per square foot (approximately 278 per square inch), which makes a short, velvetlike pile. The design usually consists of foliage and flowers, a diamond-shaped medallion in the center, and often several bands in a border. It's colored in deep blue, rose, and sometimes beige.

The *Feraghan* (fur-AH-guhn) style is a Persian rug from western Iran that's made of special knots of wool on a cotton background. These rugs are colored dark blue and red, and occasionally have a green border. They usually have a *herati* (HUH-rad-ee) design featuring a *palmette* (palm leaf orientation) surrounded by narrow, sawtooth-edged leaves, scrolling stems, and flowers. In America, this design is called a *fish pattern* because it resembles a fish.

The main color of *Herez rugs* is often a fine blue. In the center is generally a medallion. These rugs feature a border strip and small designs in the corners (Figure 20).

FIGURE 20—Iranian Herez Rug (Photo courtesy of Charles W. Jacobsen, Inc.)

The *Hamadan* (HAH-mah-duhn) style is also a Persian rug from western Iran. It's knotted with camel colors with soft reds and blues. The design is full of medallions, scrolls, leaves, flowers, stems, and sometimes animals. Many of these popular Iranian styles have been reproduced in machine-woven rugs to create an affordable alternative to the handwoven originals.

Afghanistan produces a variety of beautiful handwoven rugs that are often marketed in neighboring Pakistan. The Mahal, Khotan, and Apshar rugs from Afghanistan are characterized by homespun yarn and rich, natural vegetable dyes. Tightly woven and very dense, these rugs are prized for their beauty and endurance.

The city of Lahore in Pakistan is the primary source for *Bokhara rugs*—thick, beautifully woven geometric patterned rugs. The Bokhara rugs are easily recognized by their use of a fairly small-scale repetitive geometric pattern. India continues to produce Persian patterns as well as the *Aubusson* (O-bu-son) styles. The Aubusson style, a flat tapestry rug, is from the French district of the same name. A flatwoven cotton warp and weft rug, known as the *dhurrie,* is a specialty of this country. Kashan rugs are also made in Pakistan. With the tight weave of approximately 300 knots per square inch, these rugs are some of the world's finest.

In Nepal, primarily in Katmandu, traditional Tibetan patterns are produced. Made with handspun wool with rich colors and unique patterns, the Tibetan rugs are highly prized possessions. The rugs from Nepal include large-scale geometric patterns and even figures, such as the dragon and crane. Very unusual in the way color is used as well as the intensity of color and pattern, these rugs create a dramatic accent to any room.

The very beautiful and formal *Savonnerie* pattern originated in France in the seventeenth century. Typical of a Savonnerie pattern is a central medallion flanked by a decorative border with a solid field surrounding the central medallion. The Savonnerie pattern is currently woven in India and China in either wool or silk.

FIGURE 21—Chinese Peking Design (Photo courtesy of Charles W. Jacobsen, Inc.)

Chinese rugs are often luster-washed to create a soft, luminescent look to the wool pile. Typical of a Chinese rug is a *Peking* design that's characterized by a center medallion in soft pastel colors with floral border and symbols woven into the design (Figure 21).

With all Chinese rugs, the symbols used in the pattern have specific meaning. For example, the lotus flower is considered the flower of Buddha, the emblem of summer. It represents purity and fertility. A pair of fish in a pattern indicates a symbol of plenty or a happy marriage. In addition to the patterns and motifs found in Chinese rugs, the pile on a Chinese rug is also carved or trimmed to create different depths of pile on the rug. This process creates visual interest and a three-dimensional look to the carpet.

Choosing an Oriental rug is as personal as choosing a piece of artwork. Your client should have an emotional response to the rug, because it's a unique creation that will enhance the enjoyment of whatever room you choose to use it in! Naturally, the rug should work within the style and color scheme of an existing room. An Oriental rug could be the starting point for a wonderful color scheme and finished room interior (Figure 22).

FIGURE 22—This Oriental rug adds an interesting touch to this room. Notice that it's laid over wall-to-wall carpeting.

The Three Most Popular Rugs

- *Dhurri rugs* are the least expensive quality area rug. They're thick, flat, woven-cotton rugs from India and come in a variety of colors. Dhurries are most often found in pastels, but are also known to feature graphic images of pets, flowers, and people.
- *Bordered rugs* may contain one strip of color around the edges or several strips with two or three colors. The price is based on the quality of the rug and the number of borders.
- *Oriental rugs,* if authentic, are very expensive. A high-quality Oriental rug is a great investment, since the value of the rug never decreases. In many cases, the rug is considered to be more valuable as it ages and the threads begin to blend together. Hand-woven Oriental rugs are more valuable than machine-woven rugs. Silk Orientals have often been woven with threads made of real gold. Wool Orientals are less expensive, but are still a good investment.

Custom Rugs

Some of the finest rug makers make custom rugs to your specifications. An interior decorator can walk into the rug maker's showroom with just a rough sketch of a pattern, or perhaps a sample of a fabric or paint chips, or a photograph of a painting. The artist translates the decorator's wishes into a workable finished design for a custom rug.

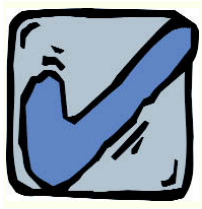
Obviously, such fine-quality custom rug making is very expensive. But even if you don't generally deal with clients who can afford the finest and most costly of rugs, you should be familiar with the outstanding examples of finest craftsmanship. An interior decorator has a responsibility to be aware of and appreciate the finest quality in home furnishings, no matter how costly. Only in this way can you develop a sense of judgment that will allow you to provide the best standard of quality for your client at any budget level.

Custom rug makers can make custom carpets to match original old wallpaper or fabrics. Custom colors and special designs pose no problems to these fine craftspeople. There are many top-notch manufacturers in the industry. You should make a point of becoming familiar with all of them by browsing repeatedly through the finest interior decorating magazines, in which you'll see their work featured. Eventually, you'll be able to recognize and quickly identify the products of various makers. Familiarity with such high quality will serve to inspire you to fine design when furnishing even the simplest home.

Consider a New Option: Have a Builder Inset Your Rugs

Rugs can be placed on top of a floor or inset into the floor. Builders can inset rugs into the tile, marble, or wooden flooring. In this way, the rug is flush with the flooring, so there's less chance of tripping.

In the next section, you'll continue your study of floors by examining such materials as wood, tile, stone, and vinyl. Before you go on, however, please complete *Self-Check 2.*



Self-Check 2

1. Your client's home is near the ocean in a semitropical area. The home is frequently affected with mildew problems. For this situation, would you select a wool or acrylic carpet? Explain your answer.

   _____

   _____

2. You're inspecting carpeting. A label on one tells you it's composed of 15% nylon and 85% wool. Would you expect the carpet to have characteristics of nylon, wool, or both? Explain your answer.

   _____

   _____

   _____

3. Your client lives in an area of low humidity. She has always been annoyed by static shocks she receives from the carpet in her home. How can you help her?

   _____

   _____

   _____

4. What is tackless stripping and how is it used?

   _____

   _____

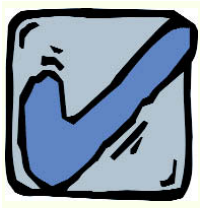
   _____

5. What are two ways in which exposed edges of installed carpeting may be protected from fraying?

   _____

   _____

(Continued)



Self-Check 2

6. When new carpeting (or flooring) has been installed in a room, what should you check concerning doors?

   _____

   _____

   _____

7. Why is it undesirable to have carpeting installed when weather is unusually damp or unusually dry?

   _____

   _____

   _____

8. Your client wants carpeting in a 12 ft × 15 ft room. The carpeting costs $15.00 per square yard. What will be the cost of the carpeting for this room?

   _____

   _____

9. The carpeting chosen for a children's playroom sells for $10.95 per linear foot. The carpet is available in 12 ft widths. The playroom is 8 ft × 11 ft. How much will the carpeting cost?

   _____

   _____

10. You're selecting a large room-size rug. Is it more desirable to select a rug shape that matches the room or one that contrasts with it?

    _____

    _____

Check your answers with those on page 85.

WOOD FLOORS

Trends in home decorating are often influenced by ease of maintenance. Wood, tile, and vinyl floors are a good example of this type of trend. In Colonial America, wood was commonly used for floors. Sometimes, small rugs were placed on the floors to add warmth and to vary their appearance. With no vacuum cleaners and not much choice of materials for carpet making, people found it easier to mop and polish a wooden floor than to care for heavy, easily stained rugs that had to be carried outdoors and beaten to remove the dust and dirt.

With the development of the vacuum cleaner and increasingly easy-care artificial fibers, wall-to-wall carpeting grew in popularity. For some time, materials such as wood, vinyl, tile, and natural stones or brick were almost completely out of favor. Now, although carpeting is still far more commonly used in new homes, a growing number of people prefer other types of floors.

As an interior decorator, you need to know enough about the variety of flooring materials available so that you can order and supervise their installation or restoration when called upon to do so. In this section, you'll examine the uses of wood floors.

Restoring Wood Floors

For an interior decorator, the prospect of restoring an old wood floor, long concealed under carpeting, can be exciting. There are so many interesting decorative treatments possible. You may simply expose a beautifully grained natural wood, or stain the floor to a rich deep wood tone, or bleach the wood to an almost-white tone. You may also color-stain the floor or paint it. And there are innumerable decorative effects that can be created through stenciling designs on the floor, either with natural wood stains or with paints.

An increasing number of people appreciate the special beauty of mellow wood floors, such as the one shown in Figure 23. A bare wood floor, partially covered by an area rug, is also becoming increasingly popular in decorating today. An example of such a treatment is shown in Figure 24.

FIGURE 23—A bare wood floor gives a very natural look to a room.

This appreciation of wood floors stems partly from the general trend to prize natural materials more highly than man-made ones. It's also because modern treatments and wood finishes now make it easier to care for wood floors than in times past.

Basic refinishing of a wood floor consists of sanding, staining, and resealing the floor. Whether this process can be done satisfactorily depends on the condition of the floor. An existing wood floor is usually something of a mystery. It may have been hidden under carpeting long ago and may not have seen daylight for many years. Often, when an older home is being decorated by new owners, they know nothing at all about the floor. Chances are that a neglected wood floor is scarred,

FIGURE 24—Some people like to soften a wood floor with an area rug, as shown here. (Courtesy of Couristan—The Foundation of Any Great Room)

stained, worn, and mottled, perhaps even with a loose board or two. What kind of wood is it? How many times has it been refinished previously? What is that dark spot in the corner? Is the wood thick enough to withstand another refinishing? What sort of finish is on the wood now? Will it hold the sort of finish that would need to be added to protect it from the kind of treatment it will receive considering the present owners' lifestyle?

Before you can recommend or suggest refinishing a wood floor, you must determine if it's at all feasible.

Tests before Refinishing

There are several simple tests you can make to help you determine whether it's worthwhile to consider restoring an old wood floor.

Test 1—To determine whether the floor can take another refinishing

The thickness of the wood determines how many times a floor may be sanded. Each time a floor is sanded, a little more of its surface is removed. Too many refinishings can result in sanding right through the floor to the subfloor.

Oak floors don't usually present this problem. Since oak floorboards are commonly cut $^{3}/_{4}$ in. thick, they can stand repeated refinishings. Other wood floorboards, however, are as thin as $^{5}/_{16}$ in. thick. Too many refinishings can, literally, wear them out.

When considering refinishing an old floor whose history you don't know, make a sample check of the depth of the flooring. To perform this check, remove a piece of the base shoe and baseboard and measure the depth of a floorboard at its edge, as illustrated in Figure 25. Insert a ruler into the space between the wall and the floor material. This measurement will tell you if the floor is thick enough to be refinished.

The depth of the floorboards can be checked even more easily where there are cutouts in the floor for heat registers or pipes. When there's no cutout and it's impractical to remove the base shoe, look for a closet in which to make the test.

Test 2—To determine whether the floor is softwood or hardwood

In an inconspicuous place, press heavily on the floor with a hard, sharp-edged object, such as the edge of a coin. If the coin easily dents the floor, it's probably made of softwood. If the floor is softwood, consider what kind of wear the occupants of the home will be giving the floor. A softwood floor will nick and mar far more easily than a hardwood floor. If the premises will be occupied by only one or two quiet-living

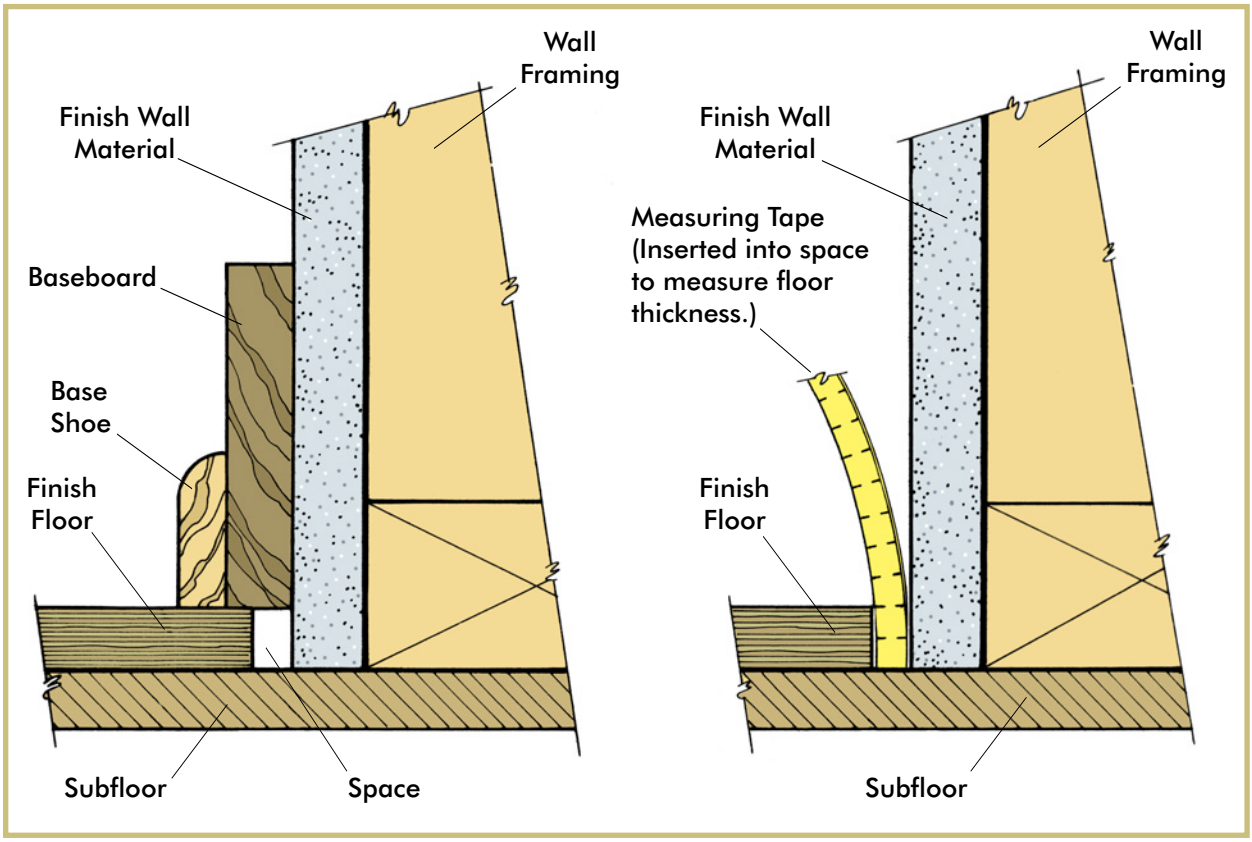


FIGURE 25—Measuring Flooring Depth for Refinishing

adults, it might be reasonable to expose and refinish a softwood floor if the clients want it done. But if the rooms will be used by many people, and especially if there are children in the family, it might be best to discourage refinishing a softwood floor.

Test 3—To determine how deeply grime has penetrated the wood

If a wood floor will receive tough wear and will need protection from spills, it's possible to give it such protection by applying a topcoating of a polyurethane, epoxy, or other synthetic finish made especially for this purpose. This topcoat is applied onto the refinished floor. These tough protective finishes, however, won't adhere well on greasy or grimy surfaces. An old wood floor may have absorbed grease and grime so far into its fibers that even after its surface is sanded, the floorboards won't hold the protective finish well.

If you would need to use one of these heavy-duty finishes and the unrestored old floor looks particularly grimy, it's worth having a test made in the closet before undertaking the refinishing of the whole floor. A spot in the closet should be sanded and finished as intended. If the finish doesn't hold on the test sample, you've saved yourself and your client a future problem.

Test 4—To determine if the floor needs sanding at all

Whether the floor needs sanding depends on what type of substance was used to finish the floor when it was last done. Many finishes, especially older ones, simply coat the surface of the floor. They're subject to uneven wear and chipping. Sanding the floor to remove such a finish is necessary before a new finish can be applied.

If the floor was last refinished in fairly recent years, it may have been refinished with a *penetrating sealer.* This finish is absorbed well into the wood. It doesn't chip or crack, and it wears well. Best of all, it can be reconditioned with special reconditioning products, which restore the floor to its original appearance without sanding. Obviously, this process can save some dollars in your client's redecorating budget.

To determine if a floor was finished with a penetrating seal, scratch the surface with a sharp object. If the finish doesn't flake off, you can assume that a penetrating seal was used. The floor can probably be restored with only a reconditioner.

Sanding

A typical refinishing job starts with sanding. Before sanding, a sanding machine operator removes the base shoes and properly tightens any loose floorboards. Proper sanding requires different techniques for different wood floor patterns. A professional sander knows how to sand the floor properly, no matter what the wood pattern is.

It's important that at least one coat of covering be applied to the wood on the same day on which the sanding is done. This coating protects the raw wood from swelling by absorbing moisture from the air.

If the person you hire does both the sanding and the refinishing, be sure he or she is an experienced person who knows enough to make that first coating application on the same day that the sanding is done.

If you're scheduling two separate people for the job, a sander and a finisher, it's up to you to schedule the appointments so that the sander arrives early in the day and the finisher arrives at an appropriate hour later on the same day.

Finishing a Sanded Wood Floor

There are many treatments for a bare wood floor and many products available. In all cases, raw wood requires some sort of a protective coating. Any additional treatments depend on the desired effect. There are four general possibilities.

To have the wood's natural color and grain show, as is. To show off the natural color of the wood, only a clear sealer is needed to protect the wood. However, your client must decide whether that sealer should have a flat clear finish or a shiny clear finish?

To give the floor a different wood color, but still show its grain clearly. Two methods can be used to change the wood tone of a floor while still allowing its grain to show through.

1. *Two-step process.* Step 1 involves applying a wood stain in the chosen tone. More than one coat of stain may be applied to deepen and intensify the chosen tone. Step 2 involves applying a clear protective sealer over the stain.
2. *One-step process.* Penetrating sealers are available with built-in wood stains. These sealers simultaneously add the desired wood tone and provide the protective coating all in one step.

Varnish stains shouldn't be used when it's desirable to retain the wood grain, since varnish stains tend to hide grain. They should be used only when the grain is unattractive and it's desirable to have a wood tone finish without emphasizing the grain.

To change the color the floor. Some people like to see the wood grain, but they prefer a color to the wood rather than a natural wood tone. Color stains are available in a wide variety of shades such as soft green, blue, or whatever color will tie in with other parts of the room decor. Like wood stains, these color stains need to be topped with a protective sealer unless a combination color stain and sealer product is used.

Stain colors are generally transparent, dulled tones rather than bright ones. Imagine applying a regular paint color that has been greatly diluted with a clear liquid, and you'll have some idea of the appearance of color stains.

To lighten the natural wood color. A very attractive special effect for some rooms can be achieved by bleaching a sanded wood floor to lighten it. Special wood bleaches are made to achieve this effect. After bleaching, the wood's grain pattern remains visible, but the color of the natural wood is made much paler. Since the bleaching process raises the grain of the wood, the floor must be sanded again after it's bleached. To lighten a bleached floor even further and give it a fairly white tone, it can be coated with a white color stain.

A polyurethane coating provides the best protection for a bleached or whitened floor, but it's important to select one that won't yellow or otherwise discolor the whitened floor. Some of the synthetic finishes (like polyurethane), which won't adhere over grimy or greasy surfaces, also won't adhere well on a bleached floor or even a color-stained floor. These finishes should always be tested to be sure compatible products are being used.

Shellac, Varnish, and Lacquer as Floor Finishes

Shellac, varnish, and lacquer have the disadvantage that they chip, scratch, and show wear. As mentioned earlier, varnish tends to hide the wood grain. In any instance when varnish is used, it should be the type made specifically for floors.

A clear lacquer is good for use where a very glossy finish is desired. Like varnish and shellac, lacquer isn't very durable. Lacquer, however, can be touched up in areas of heavy wear, and the touch-up will blend smoothly into the edges of the existing lacquer coating.

The Finishing Touch: Shiny or Mellow?

Some floors look best with a soft mellow look, and others look best with a gleaming shine. When a wood floor is finished, a decision must be made between a glowing look and a glossy look.

In the coatings industry, there are particular words used to describe the degree of shine in a particular formulation:

- A *satin finish* is a soft finish with little or no shine.
- A *low-gloss finish* has just a little more shine than a satin finish. (In some brands, the term *low gloss* is equivalent to *satin* in others.)
- A medium-gloss finish has more shine than a low gloss.
- A *high-gloss finish* has the maximum shine.

Although commercial finishing products are labeled with these shine designations, there are other steps to take to achieve a satin finish or a mirror-bright floor.

A rich-looking satin finish can be achieved by rubbing each coating of applied finish with a very fine grade of steel wool. A final coat of wax applied over the steel-wooled finish gives a very dull sheen to the floor, creating the softest, most mellow look of all.

To achieve a truly mirrorlike finish, the floor should be smoothed out with wood filler before the final finish is applied. The filler, as its name implies, fills tiny cracks, crevices, and roughness in the wood grain. Wood filler treatment isn't ordinarily needed to achieve a reasonable gloss, but when a maximum-shine finish is desired, filler helps do the trick. (If wood filler is being used and the floor is to be colored as well, the steps can be combined by mixing color into the wood filler and applying the mix to the floor.)

Stenciling Floors

Stenciling involves applying color through a cutout paper pattern. Stenciling can be an extremely handsome effect on wood floors, and it's not nearly as complicated as its interesting look implies. However, it's best not to attempt stenciling on floors or areas of floors that receive very heavy traffic.

The most personalized potential for floor stenciling is creating your own unique stencil design or having one custom-designed by a person who specializes in stenciling floors. A custom stencil pattern may be developed to match fabrics used in the room, to pick up colors in the room, or to tie in with the pattern of an area rug. A mock area rug may even be stenciled right onto the floor! Stenciling may be done as a border or as an overall floor design. It may be simple or ornate in design.

Floor Stenciling

To view some sample floor stencils, visit

http://www.hennydonovanmotif.co.uk/border_stencils.htm

Wood-tone stenciling. One stenciling effect is achieved by using contrasting wood tone stains. A very light-colored stain is applied over the entire floor, and then a dark stain is applied in the stencil pattern.

Painted stencils. On a painted wood floor or even on a clear or stained wood floor, a stencil design may be painted, using thin coats of floor enamel and then protecting the design with a surface finish.

A unique characteristic of stencil design is that all parts of the design must be attached. Since the design is cut out of one piece of paper, there can be no separate loose parts in it. If you want to design a stencil yourself, it will take some practice to learn to make effective patterns. It would be best, at first, to make a rough sketch of your design idea and take it to an artist who understands stencil design to develop the finished stencil for you.

A stencil floor design may be planned to use more than one color, but the more colors, the more it will cost to have the stencil applied.

A design may also be applied to the floor by another process called *screen printing.* In this case, a stencil is adhered to printing screen, and the design isn't limited to the typical connected paper stencil designs. In fact, since screen-printing stencils can be made photographically, almost any sort of design can be duplicated on the stencil. Look in the Yellow Pages of any city telephone directory under "Screen Printing" for the name and address of screen printers who can tell you more about the process.

Screen printing is a process that's also used to make custom-designed wallpaper and fabrics, so it's well worthwhile for every interior decorator to establish a good working relationship with a screen-printing shop. Learn exactly what the screen printer can do for you. He or she can help make your reputation as a very special custom interior decorator.

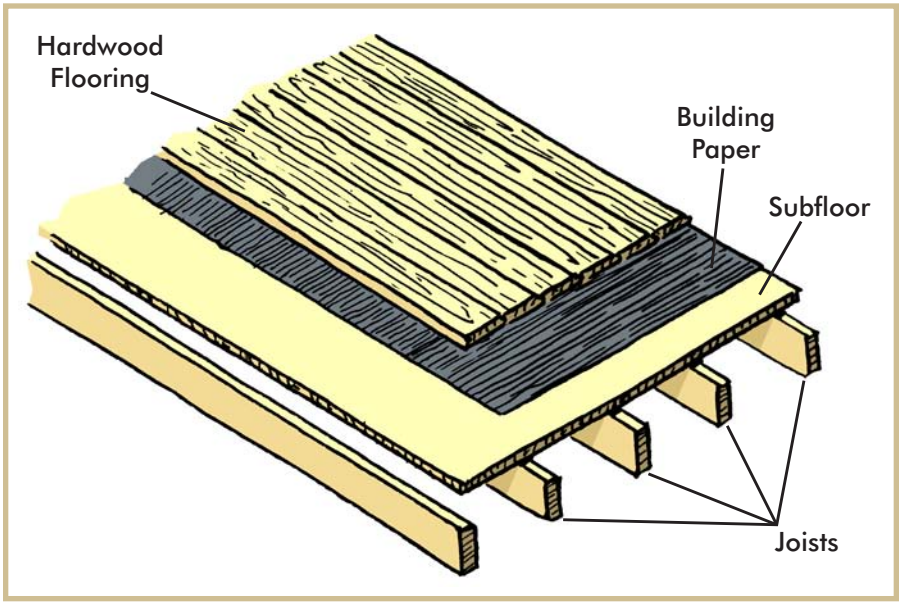
If you would like to learn more about the process of screen printing, visit **http://www.pneac.org/printprocesses/screen/.**

Installing Wood Floors

In some cases, a client may want to install a hardwood floor in a room that has some other floor treatment. In general, a hardwood floor may be installed in any area where it won't be subjected to damage from moisture. For example, a hardwood floor shouldn't be installed in any room below ground level, where moisture is generally a problem. Also, a client should be discouraged from installing a wood floor in a bathroom or kitchen. Despite the good protective wood finishes

now available, these areas of higher humidity and potential liquid spills aren't suitable for wood floors. A wood floor may be installed at ground level or above on a typical subflooring of joists and plywood. Figure 26 illustrates the basic construction of a hardwood floor.

FIGURE 26—Hardwood Flooring Construction



The climate in some areas may not require homes to have cellars. In such cases, the ground-level floors are built directly on a cement slab foundation. It's possible to install a hardwood floor over such a slab, if the slab is sufficiently free of moisture.

Once installed, cement slabs retain moisture for several years. If the building is only a few years old, the slab may still be too moist. You might also suspect the slab of moisture if there has been a plumbing problem or slab repair for any reason in recent years.

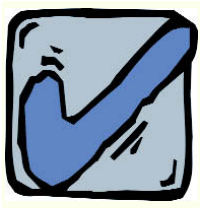
To test a cement slab for moisture, use one of these easy tests:

1. Place a smooth rubber mat (one with no ridges) on the slab and place a weight on it. Let the mat stand in place overnight. If dark water marks show on the slab when it's removed, the slab is too moist to take a wood floor.
2. Tape a sheet of polyethylene film to the slab. Seal all of the edges with a nonporous tape. Check the film in 24 hours. Clouding or drops of moisture on the underside of the film means that the slab isn't dry enough to take a wood floor.

If a slab is moist and the owners want wood floors, you must delay installation until the slab has dried naturally (this process could take years), or you can speed the drying process by providing heat and ventilation. This drying method is generally practical only if no one is presently occupying the premises.

When new wood flooring is installed during a complete decorating job, the hardwood floors shouldn't be finished until after wallcoverings and all other room installations are completed. After the floor has been finished, the base molding receives a final coat of finish.

In the next section of this study unit, you'll look at some other flooring possibilities, such as tile, stone, vinyl, and linoleum. Before going on, however, please complete *Self-Check 3.*



Self-Check 3

1. If an old floor has been refinished many times in the past, why may you not be able to finish it again?

   _____

   _____

   _____

2. How would you test a wood floor to determine whether a penetrating sealer was used on it when it was last finished? If the test indicates that a penetrating sealer was used, what does that tell you regarding refinishing the floor?

   _____

   _____

   _____

3. Can a wood floor be made lighter than its natural color without painting the wood?

   _____

4. You're having a wood floor refinished in a slightly darker wood tone. If the two-step finishing process is used, what are the two steps involved?

   _____

   _____

5. Would paint or stains be used to stencil a wood floor?

   _____

   _____

Check your answers with those on page 86.

DURABLE FLOORS

Ceramic and porcelain tile, stone, and brick floors are often used in entries and as fireplace hearths and stove hearths. These materials are appropriate for such uses because they can withstand hard wear, moisture, and dirt. But many interior decorators also use these materials imaginatively in other areas of the home.

Laminates, vinyl, linoleum, and terrazzo are also good floor choices for active use. Advancing technology in the development of these products allows the decorator great freedom in choosing beautiful floors for high-traffic areas.

Let's take a look at each of these alternatives.

Tile

Tile is available in various sizes and shapes. It's adhered to a surface with a strong binding adhesive. Then, the spaces between the tiles are filled with a puttylike substance called *grout.* The grout may be tinted any color desired. The color of the grout is an important factor in the overall decorative effect of ceramic tile, as illustrated in Figure 27.

Ceramic tile, made from natural clay, is used widely in home finishing. Most ceramic tile is stainproof and withstands fading. Ceramic tile is commonly used in bathrooms and kitchens because it's undamaged by water and steam. It's used for countertops, splashboards at sinks and tubs, and for entire walls as well as floors. Figure 28 illustrates how a tile floor can add elegance to a bathroom.

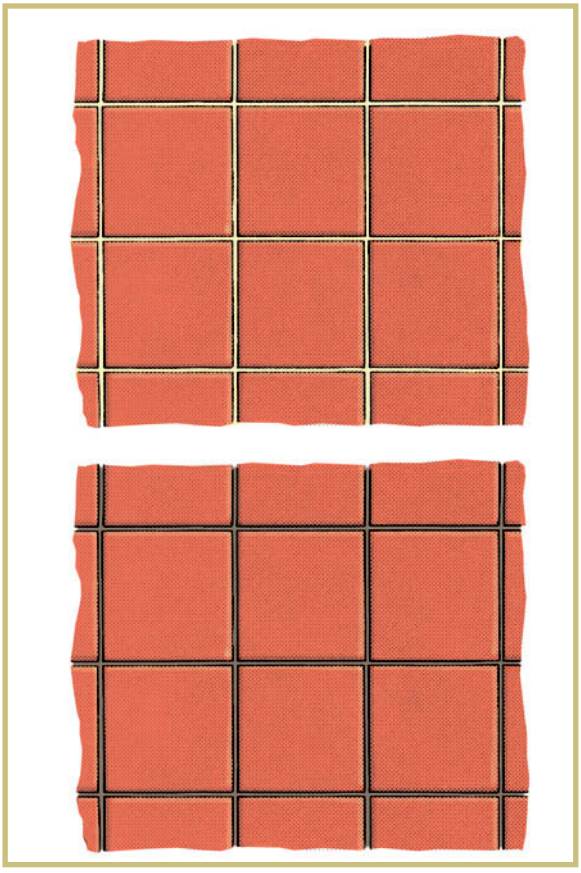


FIGURE 27—The color of the grout used between tiles can affect the overall appearance.

FIGURE 28—This tile floor, with a simple design around the edge, gives an air of elegance to this bathroom.

Porcelain tiles are also a good option for flooring. Because porcelain tiles are baked at higher temperatures than ceramic tiles, porcelain is harder and has a lower water absorption rate than ceramic. Another benefit to porcelain is that the color of the tile is consistent all the way through the tile instead of being contained in a top layer. Therefore, a chip in a porcelain tile is less noticeable than one in a ceramic tile. Porcelain tiles are available in a wide variety of finishes and colors. They provide a look very similar to stone and marble, but they're more affordable.

Decorating Effects

Tiles are available in solid colors and in patterns. From a combination of these, you can construct an overall pattern, using a row of the patterned tiles, perhaps as a border against solid-colored tiles. You may choose to alternate solid-colored tiles with patterned tiles to form a checkerboard, or you may use the patterned tiles to create a more elaborate

pattern of your own design against a background of the plain tiles. Figure 29 shows a few of the ways ceramic tile can be patterned or shaped.

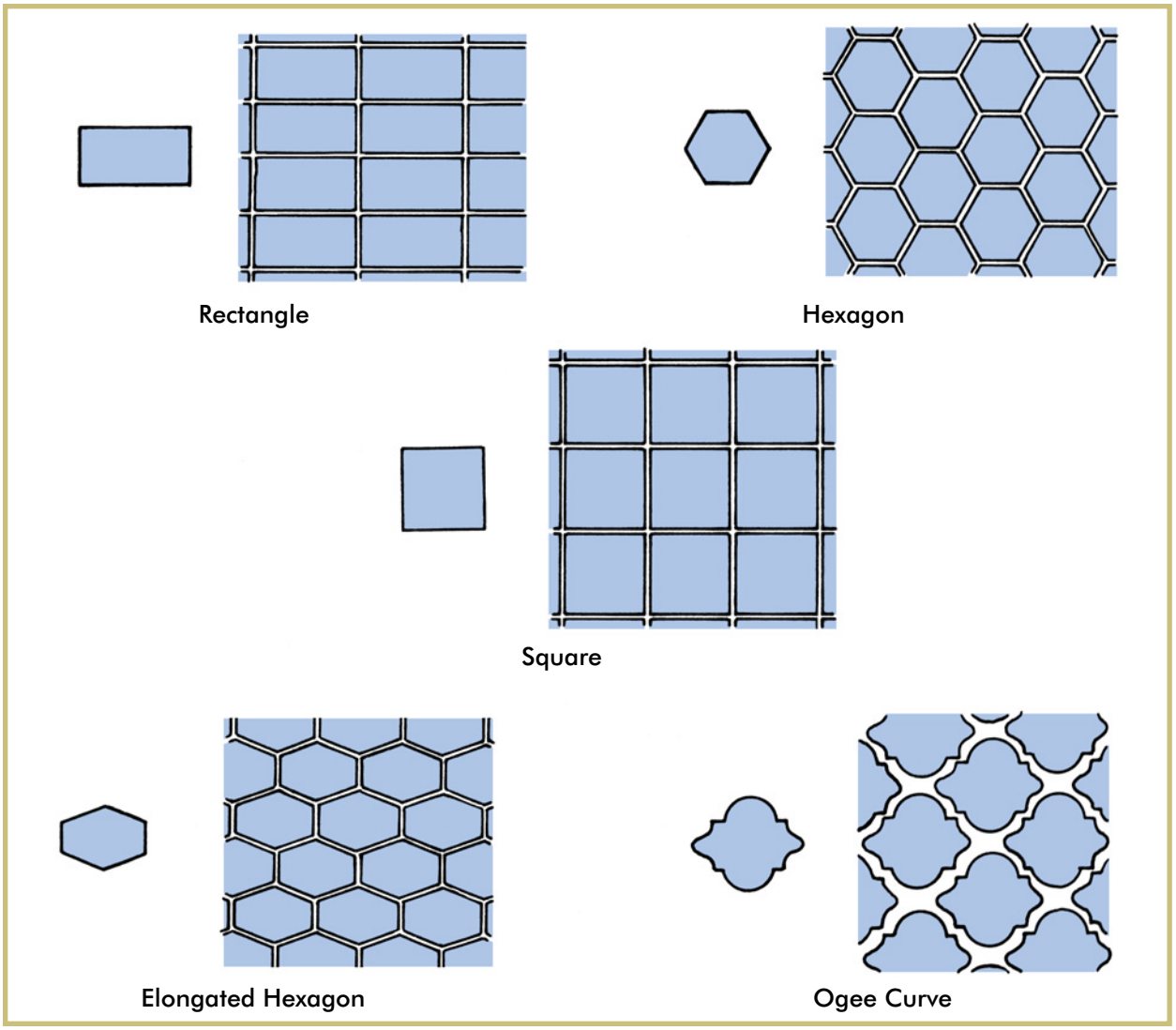


FIGURE 29—Typical Tile Shapes and Arrangements

Another standard way in which patterned tiles are produced is the *four-tile pattern.* One quarter of the pattern appears on four different tiles. Four tiles positioned together in the proper order form the completed pattern. These four-tile patterns may be positioned as desired against a background of solid color tiles, as illustrated in Figure 30. The four squares may be used to form a border pattern, a checkerboard pattern, or a random pattern, just as you might use single-pattern tiles. The four-square tile pattern may also be used as a

repeating pattern with no solid color squares at all. Figure 30 shows an example of the four-square pattern, as well as other combinations used to create patterns. These patterns are only some possibilities. If you use your imagination, you can create many other interesting designs.

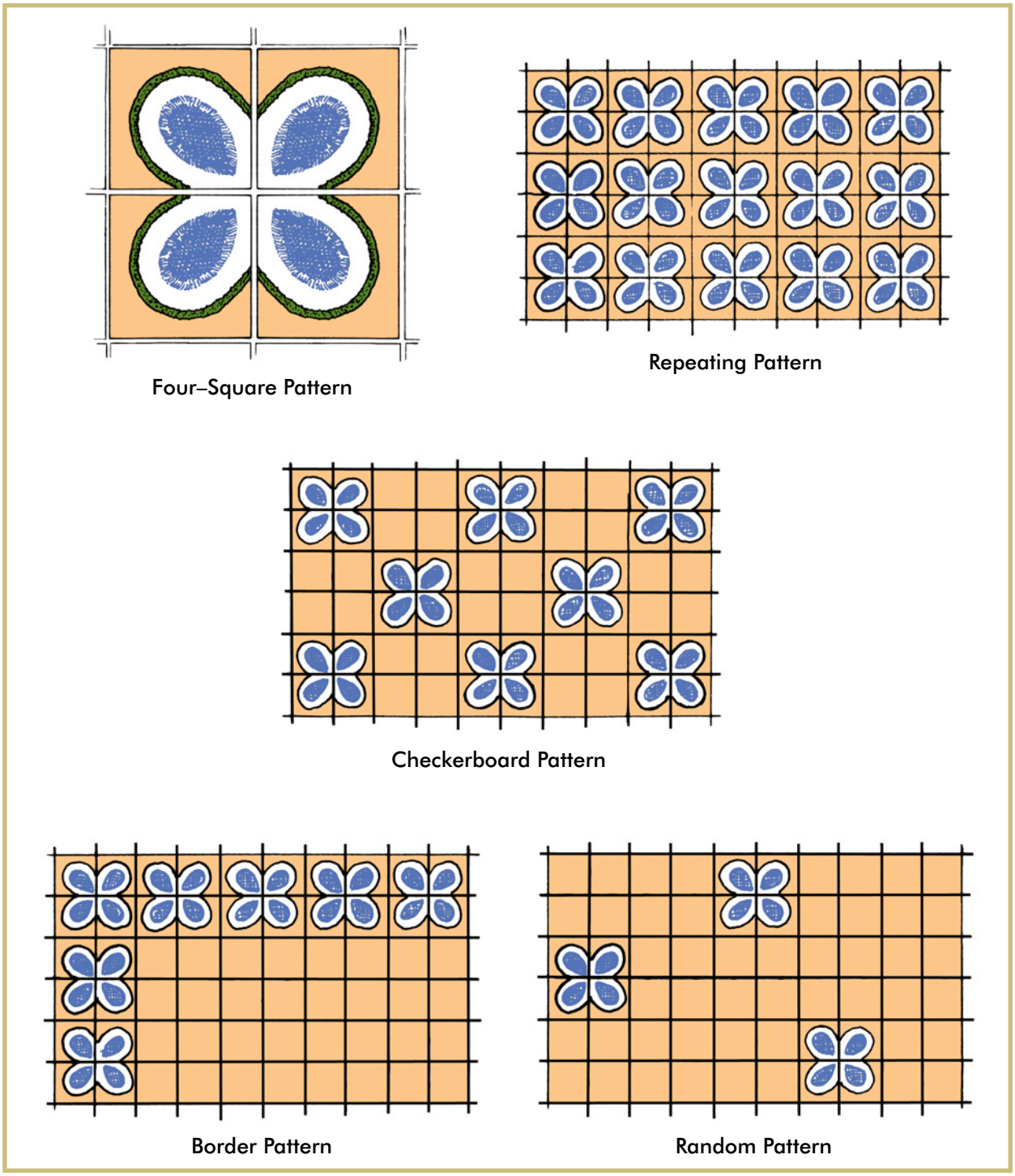


FIGURE 30—Some tile patterns come in groups of four tiles that can be installed to form a larger pattern. These four-tile patterns can be arranged in a wide variety of designs.

Tiles are also available in larger groupings. When arranged properly, they create an interesting picture.

Solid tiles in different colors can also be used to create geometric and other designs. The samples in Figure 31 are just a few of the ways tiles can be arranged to provide interest in a room.

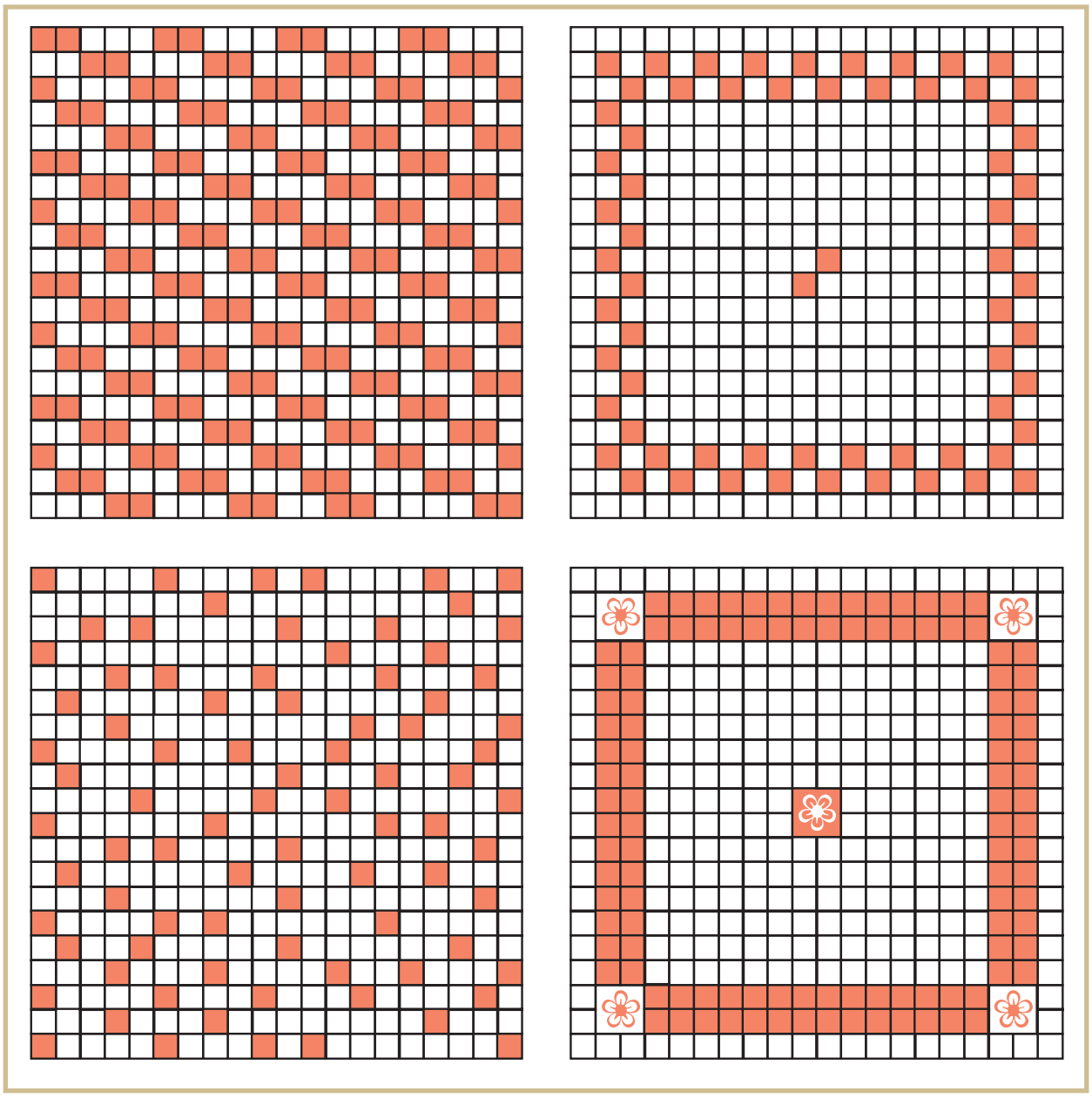


FIGURE 31—Here are just a few ways solid-color tiles can be arranged to create interest. You can also see how you can combine solid tiles with some patterned tiles to create even more variety.

Using ceramic tile can be rewarding for the decorator since it gives an opportunity to be creative in assembling the colors and patterns. You can create a floor especially for the room in which it will be used. How successful it will be depends on how well you've designed the floor.

Here are a few important guidelines for you to consider when working with ceramic floors.

Avoid brilliant colors and fancy patterns. Tile is a permanent flooring material. Although a wealth of brilliant patterns and colors are available in ceramic tile, they normally don't belong on the floor.

People tire easily of prominent bright patterns when they cover large areas. Equally important is the fact that even a small splash of bright colors in the border tiles severely limits your client's ability to change color schemes in that room. This theory is true even of a small powder room where, after some years, the client may feel like changing the colors of towels and accessories. If the durable ceramic tile is in fairly subdued soft tones, there's room for creating various color effects in the room. If the tile color limits the room to one color effect, your client will grow to dislike the tile eventually.

Create the flooring to be suitable for the room in which it's used. Tile is a cool flooring. Therefore, it's most suitable for warm climates. It looks particularly at home in Mexican- and Spanish-style homes. Don't be tempted to use tile in the wrong setting simply because it seems interesting in itself.

Gain decorating experience before designing any special tile flooring patterns. A mistake in ceramic tile, once installed, is apt to be a very permanent mistake. If your client isn't happy with it, it could even cost you a considerable sum to have the tile removed. Nevertheless, for the right situation, you'll find tile a challenge to your creative abilities and a delight to use! Tile manufacturers' showrooms can be found in many major cities. Since new designs are introduced frequently, every decorator should keep up to date with the newest offerings.

Measuring for Tile Patterns

Ceramic tiles are available in a wide range of sizes. Some are less than 1 in. Other typical sizes are 8 in., 9 in., and 12 in. Pieces smaller than 1 in. are called *mosaic tiles.* Historically, these small tiles were used to form art designs described as mosaic art. Figure 32 pictures the mosaic tiles of the Roman Baths in Bath, England. Now the term *mosaic* is used to describe even solid-color applications of the little tiles.

FIGURE 32—Mosaic Tiles in Flooring (Photo courtesy of Virginia P. Sosik)

When planning a job in which you intend to use more than one type of tile (for example, two plain colors, both plain and patterned tiles, and so on), you must make an exact sketch of the overall pattern you want. In this way, you can make an accurate count of the number of each kind of tile needed to complete the job. If you use a professional tile setter for the job, you can leave these specifications for him or her to plan from your rough sketch. If you use a general handyperson to install the tile, you may need to work closely with that person to determine the exact number of each kind of tile needed.

Here are some examples of how to determine the number of tiles needed.

Example 9: Suppose you want to lay plain tile in a room 10 ft × 10 ft (Figure 33). If the tiles are 12 in. squares, how many tiles would you need?

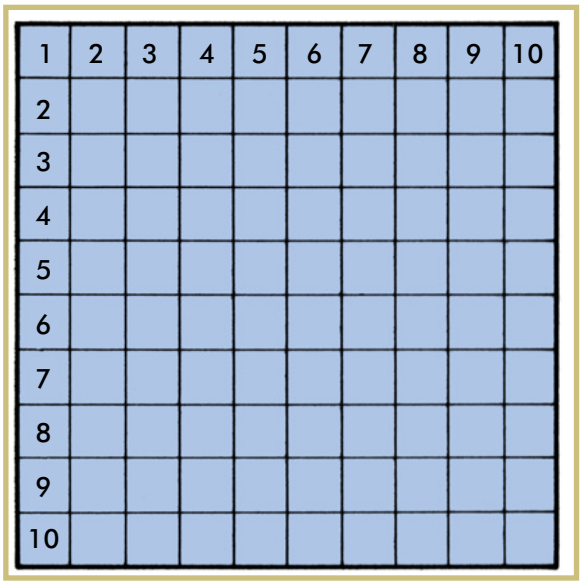


FIGURE 33—It would take 100 (12 in.) tiles to cover the floor in a 10 ft × 10 ft room.

Solution: Since 1 tile (12 in.) equals 1 ft, multiply the room's dimensions, in feet, to determine the number of tiles.

10 × 10 = 100

Answer: You would need 100 (12 in.) tiles to tile the room.

Example 10: Suppose you were given the measurements of the room in Example 9, but this time in metric units. That is, the room is 3.05 m × 3.05 m. First, you must convert meters to feet. Remember: 1 meter equals 39.37 inches.

Solution: Multiply 3.05 meters by 39.37 to find total inches.

3.05 meters × 39.37 = 120 inches

Then, divide by 12 to find feet.

120 ÷ 12 = 10 ft

Since 1 tile (12 in.) equals 1 ft, multiply the room's dimensions, in feet, to determine the number of tiles.

10 × 10 = 100

Answer: You would need 100 (12 in.) tiles to cover this floor.

If you were planning to use a pattern of two contrasting color tiles in the same room, you would first determine the layout of the tiles. Suppose you develop a layout like the one in Figure 34. You know you need 100 tiles for the complete job. To find out how many of each color, count the darker tiles and subtract that number from 100. For example, the layout in Figure 34 calls for 30 dark tiles in the same 10 ft × 10 ft room. To find out how many light tiles you need, subtract this number from the total (100).

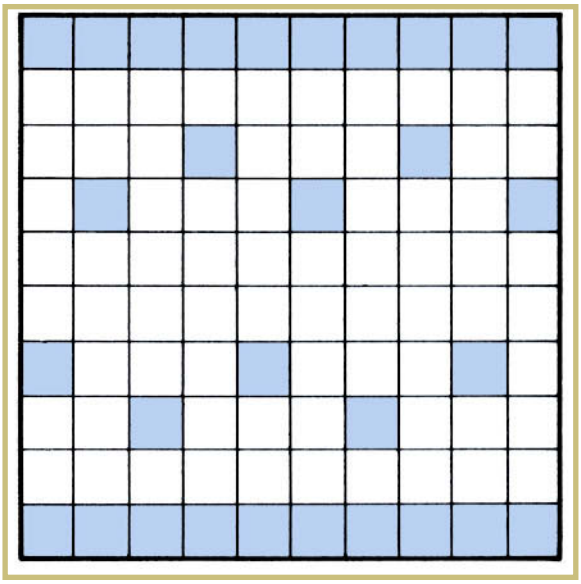


FIGURE 34—You need 30 dark tiles and 70 light tiles to cover the 10 ft × 10 ft room in this illustration.

100 – 30 = 70

You would order 30 dark tiles and 70 light tiles to cover the floor.

So far, you've learned how to calculate the number of 12 in. tiles. Since there are 12 in. in 1 ft, it's easy to determine how many 12 in. tiles you need. What if your client has chosen 6 in. tiles?

Example 11: How many 6 in. tiles would be used in a room 10 ft × 10 ft?

Solution: The measurements you're given are in feet and the tiles are in inches. Therefore, you must first convert the wall length to inches:

10 in. × 12 in. = 120 in.

Each wall is 120 in. Next, divide the length of the wall (120 in.) by the length of a tile (6 in.) to calculate the number of tiles needed to go the length of the room:

120 in. ÷ 6 in. = 20 tiles

In this case, the width of the room is the same as the length, so you would need 20 tiles to go both the length and the width. To find the total number of tiles needed, multiply 20 (for the length) by 20 (for the width):

20 × 20 = 400

Answer: You need 400 (6 in.) tiles for this job.

In some cases, the number of tiles doesn't divide evenly into the length or the width of a room.

Example 12: How many 9 in. tiles would you need for a room 10 ft × 10 ft?

Solution: The measurements you're given are in feet and the tiles are in inches. Therefore, you must first convert the wall length to inches:

10 in. × 12 in. = 120 in.

Each wall is 120 in. Next, divide the size of the tiles (9 in.) by the number of inches in the length and the width:

120 ÷ 9 = 13 $^{1}/_{3}$ tiles

In this case, the width of the room is again the same as the length, so you would need 13 $^{1}/_{3}$ tiles to go both the length and the width. To find the total number of tiles needed, multiply 13 $^{1}/_{3}$ (for the length) by 13 $^{1}/_{3}$ (for the width):

13 $^{1}/_{3}$ × 13 $^{1}/_{3}$ = 177.7, or 178 tiles

Answer: You'll need 178 (9 in.) tiles for the room.

When these tiles are laid on the floor, the extra amount is usually divided in half and put on both ends. For example, you'll have 13 $^{1}/_{3}$ tiles along one wall. In this case, the $^{1}/_{3}$ of a tile is equal to 3 in. ($^{1}/_{3}$ × 9 = 3). This 3 in. will be cut in half and put on each end of the wall. This practice helps to keep the room looking in balance and is especially important if the floor has a pattern. In addition, tiles can be cut to fit irregular edges and niches of a room where whole tiles won't fit.

Stone and Brick

Stones for floors range in color from yellowish to gray to greenish to red or violet tints. The most practical colors for homes are the neutral grays and greenish tones, as shown in Figure 35.

Brick, of course, is frequently used for fireplace hearths. However, it can also be an attractive, warm-looking flooring either for outdoor patios or rustic kitchen areas (Figure 36).

FIGURE 35—A stone floor adds rustic beauty to a decor. (Reprinted with permission from Country Floors)

FIGURE 36—View A shows how bricks can be used in outdoor areas. View B illustrates how a brick floor can add both color and pattern to a room.

However, brick has some drawbacks. It's not easy on the feet, and it tends to be cold. Also, bricks and unglazed tiles can absorb greasy stains. So when used where stains could be a problem, they should receive a protective coating.

Laminate

Laminate flooring is a durable product that looks like wood or stone. It's a cost-effective option for homeowners today. Often called *Pergo,* after the Swedish company that first introduced the flooring over 20 years ago, laminates are now available from a number of flooring manufacturers.

Laminate flooring is actually a photograph of real wood or stone, covered with a layer of very strong plastic. Benefits of laminates include cost, durability, resistance to ultraviolet rays, easy of installation, ease of cleaning, and ease of repair. As with carpeting, the underlayment or padding is as important as the laminate itself. Underlayment is usually made of cork, felt, or foam and is designed to absorb sound and cushion the floor.

The History of Laminates

When laminate flooring first came out, it was very inexpensive. Therefore, it became popular rather quickly. But that doesn't mean it always looked good. Initially, there were only three color options—natural, maple, and cherry. And the cherry looked alarmingly pink!

Laminates have come a long way since they were first made. Today, some designs resemble stone. Others are nearly impossible to distinguish from genuine hardwood.

One of the latest inventions for laminate floors is the designs that lock together without the use of adhesive. These are appearing at do-it-yourself stores because they can be snapped in place so quickly and easily.

At one point in time, laminates used to be another word for *tacky.* Today, they've actually started to get interesting and attractive.

Vinyl

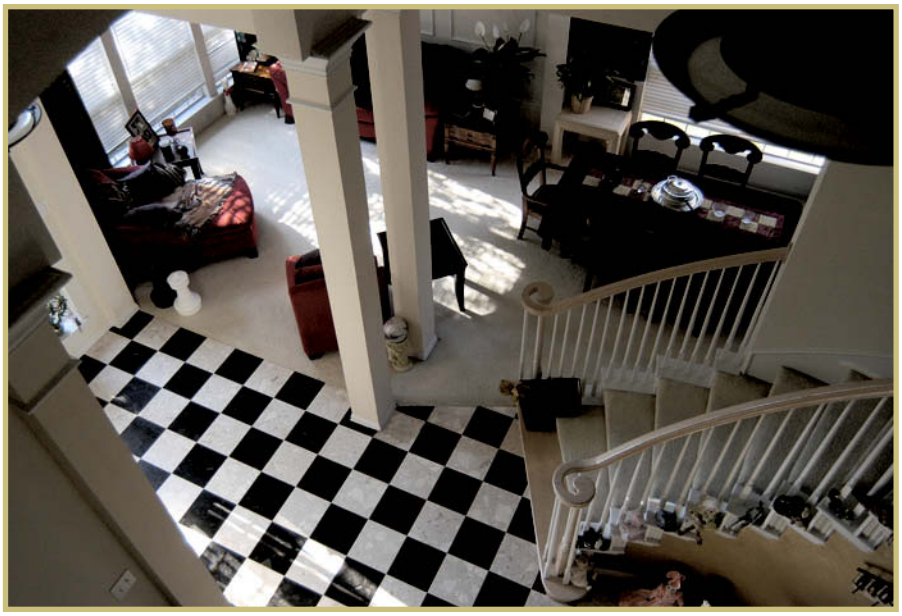
Because *vinyl floors* have a high resistance to wear, staining, and chemicals, they're desirable in all areas of a home, particularly in the kitchen, bathroom, and perhaps the entrance. Figures 37, 38, and 39 illustrate the use of vinyl in each of these three areas.

Vinyl flooring is manufactured in a multitude of patterns and colors, giving decorators all of the choices they need to coordinate with contemporary and traditional room designs. Vinyl flooring is available both in sheet form and as 9 in. or 12 in. tiles.

FIGURE 37—Vinyl Flooring in the Kitchen

FIGURE 38—Vinyl Flooring in the Bathroom

FIGURE 39—Vinyl Flooring in an Entrance



Linoleum

Linoleum is a hard, smooth, washable floor covering that can be installed on top of nearly every kind of above-grade level floor surface except marble, terrazzo, and concrete. Linoleum was discovered in the mid-1800s by an Englishman who was trying to make artificial leather for bookbinding.

Linoleum is an old standby that's still a good buy. In inlaid linoleum, the colors go all the way through the material, so that any wear doesn't show readily. The surface needs frequent cleaning and waxing to reduce wear from abrasive particles. It's not suitable for laying over concrete in basements. A wide variety of colors and patterns are manufactured.

Terrazzo

Terrazzo is a form of mosaic flooring made by embedding small pieces of marble or stone chips in mortar and then polishing the surface. The word *terrazzo* comes from the Italian word for terrace. Most terrazzo floors are used for terraces and outdoor walkways, as shown in Figure 40. But there's also an indoor terrazzo that's used occasionally in luxury residences.

FIGURE 40—Terrazzo Flooring
(Reprinted with permission from Country Floors)

Terrazzo used indoors is generally made of marble chips and has a smooth surface. Terrazzo used outdoors has a rougher surface and is made of stones embedded in mortar. Occasionally, this type of terrazzo is used indoors. This application can be a very durable, casual, and pleasingly cool flooring in a low-lying semitropical or tropical climate where humidity and potential flooding from hurricanes are a menace to less durable flooring materials.

Terrazzo is very easy to take care of. It needs no protection from wear. It's usually finished with a penetrating sealer to prevent the cement mortar from absorbing stains. These floors can be swept and damp-mopped with a neutral (nonacid, nonalkali) cleaning solution. Every few years, terrazzo floors, after being freshly cleaned, should be resealed.

When planning to install a terrazzo floor, indoors or outdoors, you must decide the colors and size of stone or marble chips to be used and the color intended for the cement. The chips, called *tesserae* (TESS-er-eye), are graded by number. The number indicates the uniform size of the chips. The number series starts at zero for the smallest chips. As the numbers become higher, the chips become larger.

The background cement may be left white, or it may be tinted any desired color. Gray Portland cement should be avoided for terrazzo floors since it tends to blotch and discolor unevenly. The thickness of a terrazzo floor may vary from mere fractions of an inch to about 4 in., depending on where it's being installed and the size of the chips being used. Although you won't often have to plan terrazzo floors in residential interior decoration, you should be aware of their possible use in situations that call for special treatment.

Grass Carpet and Indoor-Outdoor Carpeting

The durability and extremely easy maintenance of *grass carpet* have won it a lasting place in patio coverings. Now it's accepted not as "fake grass," but for what it is—a tough plastic covering that has proven itself. The fact that it's now available in a variety of colors has helped to take it out of the

fake grass category (although green is still popular). It resists water stains, mildew, rot, and fading. It requires only sweeping or vacuuming. The tough, moisture-resistant, short pile of indoor-outdoor carpeting is attractive and durable, but not as tough as grass carpet for uncovered patio use.

Environmentally Friendly Floors

Environmental awareness in today's market makes it essential for decorators to familiarize themselves with environmentally friendly alternatives. The U.S. Green Building Council (USGBC) is a coalition that works to promote buildings that are environmentally responsible, profitable, and healthy places to live and work. USGBC has developed a Green Building Rating System called LEED (Leadership in Energy and Environmental Design). According to the USGBC Web site, this system "is a voluntary, consensus-based standard to support and certify successful green building design, construction and operations."

Council members work together to develop LEED products and resources. To learn more about the council and its activities, visit its Web site at **http://www.usgbc.org.**

Bamboo Flooring

Bamboo flooring is gaining interest in the decorating world due to its beauty, unique grain, and color choices. It's made from bamboo stalks that are cut into strips and laminated into planks. Bamboo flooring is installed like traditional hardwood flooring.

Bamboo is highly durable and has the ability to be easily regenerated. Since bamboo is a quick-growing plant and is easy to produce, it's less costly than traditional hardwoods. Bamboo is also harder than most traditional hardwoods. It provides a unique and beautiful alternative to other types of hardwood floors.

Cork Flooring

Cork flooring is made from the bark of a tree—the only tree that can regenerate itself after each harvest. This characteristic has made it an increasingly popular, environmentally friendly renewable resource for flooring.

Cork has many characteristics that make it a great choice for flooring.

- Cork has the ability to compress and recover even under heavy traffic situations.
- It provides noise and vibration reduction and thermal insulation.
- It's antimicrobial and resistant to water, mildew, mold, rot, and insects.
- It's easy to maintain.

Making Use of the Full Range of Floor Materials

From your experiences, you're undoubtedly familiar with at least some of the flooring and floor coverings you've been studying. As you've seen in these pages, you have many choices available to solve various decorating problems. Your job as a wise and imaginative interior decorator is to keep these options in mind and select what's appropriate for each job. In other words, your knowledge and familiarity with various types of flooring should be an aid to your clients. Too often, people without interior decorating knowledge won't think beyond the possibility of replacing the floor covering with another one of exactly the same kind. From your knowledge of the wealth of floor coverings and floorings available, you should be able to determine whether that's the best solution for your client or whether there's a better choice.

Practice Exercises

Start building your working knowledge of flooring and floor coverings now. Don't wait to gain professional experience to expand your awareness. Here are some ways you can increase your knowledge and familiarity with flooring and floor coverings.

Note: As you complete this practice exercise, remember to collect samples for your color sampler.

Visit carpeting shops in your area. Explain that you're a student of interior decorating and would appreciate the opportunity to look around to become familiar with what's available. Browsing in this way should allow you to inspect the carpeting without having the salesperson or shop owner try to sell you carpet. While you're at the shop,

- Compare grades of carpet.
- Compare carpets made of different fibers.
- Compare colors. Try to envision how each color would look spread out wall-to-wall in rooms with various wall colors.

Visit a tile center. Become familiar with the variety of tile available. As you look at each sample, remember to envision the total effect of that color tile spread out over a large area.

Visit a hardware store or home center. Collect sample cards of wood stains, both wood tones and color stains.

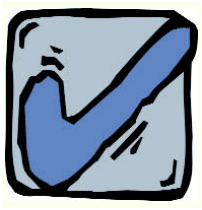
Visit a lumberyard or home center to inspect various hardwoods. Many lumberyards carry wood finishes, which they may have on display as finished samples. Learn to recognize the different woods and finishes so that you can call them to mind by name later.

Visit dealers in fine rugs. Browse through antique rugs and contemporary reproductions as well as contemporary designs. Browse as frequently as you can until you're able to identify styles and distinguish originals from reproductions.

Visit your local library. Obtain copies of interior design magazines. Study the pictured floors and the ads to become familiar with the various manufacturers of flooring materials.

Congratulations! You've reached the end of this study unit. Please complete *Self-Check 4.*

Note: Do not submit your answers to these exercises. They're for your benefit only.



Self-Check 4

1. What are mosaic tiles?

   _____

   _____

2. What advantage do porcelain tiles have over ceramic tiles?

   _____

   _____

3. As a floor material, is ceramic tile more suited to use in cold climates or warm climates?

   _____

4. Calculate the number of 9 in. tiles you would need to lay a floor in a room 9 ft × 18 ft.

   _____

5. What is a four-tile pattern?

   _____

   _____

Check your answers with those on page 86.

ANSWERS

Self-Check 1

1. Find an equally effective carpet that works well with the pillow fabric. If that isn't possible, advise your client to save the fabric for some other use in another room. The carpet is more important.
2. A very pale floor gives a room a light, ethereal quality.
3. Wall-to-wall carpet or a light-colored flooring (tile, for example) will make the room look larger.
4. Carpeting will best absorb sound.
5. Coordinate the floor treatment as much as possible with other elements of the decor.
6. Eclectic room design mixes styles deliberately.
7. Style, texture, and mood
8. Size, relativity, and light

Self-Check 2

1. Select acrylic carpeting because it (like all synthetics) isn't subject to mildew.
2. The carpet will have characteristics of wool only. It takes at least 20% of a fiber to be included in the blend before it affects the carpet's characteristics.
3. If the present carpeting will remain, have it sprayed with antistatic spray. If you'll have new carpeting installed for her, select an antistatic carpet fiber.
4. Tackless stripping is made of narrow wooden strips with angled tacks protruding through the wood. The stripping is attached to the floor, and the carpeting is attached to the stripping.
5. By binding the edges or installing metal stripping over the exposed edge
6. Check to see whether all doors will swing freely over the new flooring. If the door rubs, its bottom edge should be sanded to make it clear the carpet surface.

7. When humidity conditions are extreme, it's more difficult to install carpet with the proper tension to avoid wrinkling or pulling.
8. The total cost will be $300.00.

   12 ft × 15 ft = 180 sq ft

   180 sq ft ÷ 9 = 20 sq yd

   20 sq yd × $15.00 = $300.00
9. The carpeting will cost $87.60. It will take 8 linear ft to carpet the room. $10.95 × 8 = $87.60
10. A room-size rug should match the shape of the room for best appearance.

Self-Check 3

1. The boards may have been worn so thin by previous sanding that they would be worn through if sanded again. Also, the floor may have absorbed grease or oil.
2. If the finish doesn't flake off when scratched with a sharp object, it's probably penetrating sealer. In that case, the floor won't need a complete refinishing. A reconditioner will do.
3. Yes. A wood floor can be bleached to lighten it.
4. First, wood stain is applied in as many coats as needed to achieve the desired tone. Second, a topcoat of clear protective sealer is applied.
5. Either might be used. However, wood stains wouldn't be used on a painted floor.

Self-Check 4

1. Mosaic tiles are small tiles up to 1 in. or so in size.
2. Because porcelain tiles are baked at higher temperatures than ceramic tiles, porcelain is harder and has a lower water absorption rate than ceramic.
3. Warm climates, since it's a cool flooring material

4. You would need 288 tiles.

   First change the room measurement into inches.

   $9 \times 12 = 108$ in.

   $18 \times 12 = 216$ in.

   Determine how many tiles you'll need for each wall measurement.

   108 in. ÷ 9 in. = 12 tiles

   216 in. ÷ 9 in. = 24 tiles

   Multiply the two numbers to determine the number of tiles you'll need.

   $12 \times 24 = 288$

5. A four-tile pattern is a group of four tiles that have a pattern on their surfaces. When laid next to each other, the four tiles form a larger image.